

# *The* SHIPPING WORLD

AND SHIPBUILDING & MARINE ENGINEERING NEWS



VOL. CXXIV No. 3020

WEDNESDAY, MAY 16, 1951

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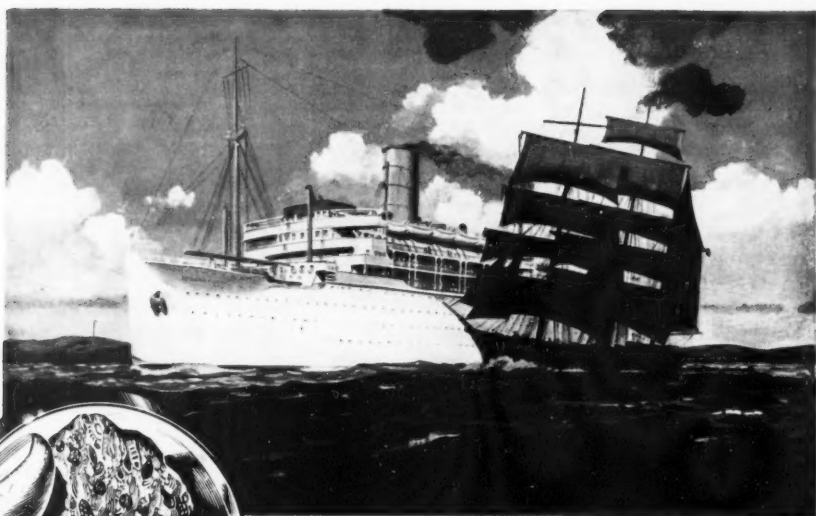


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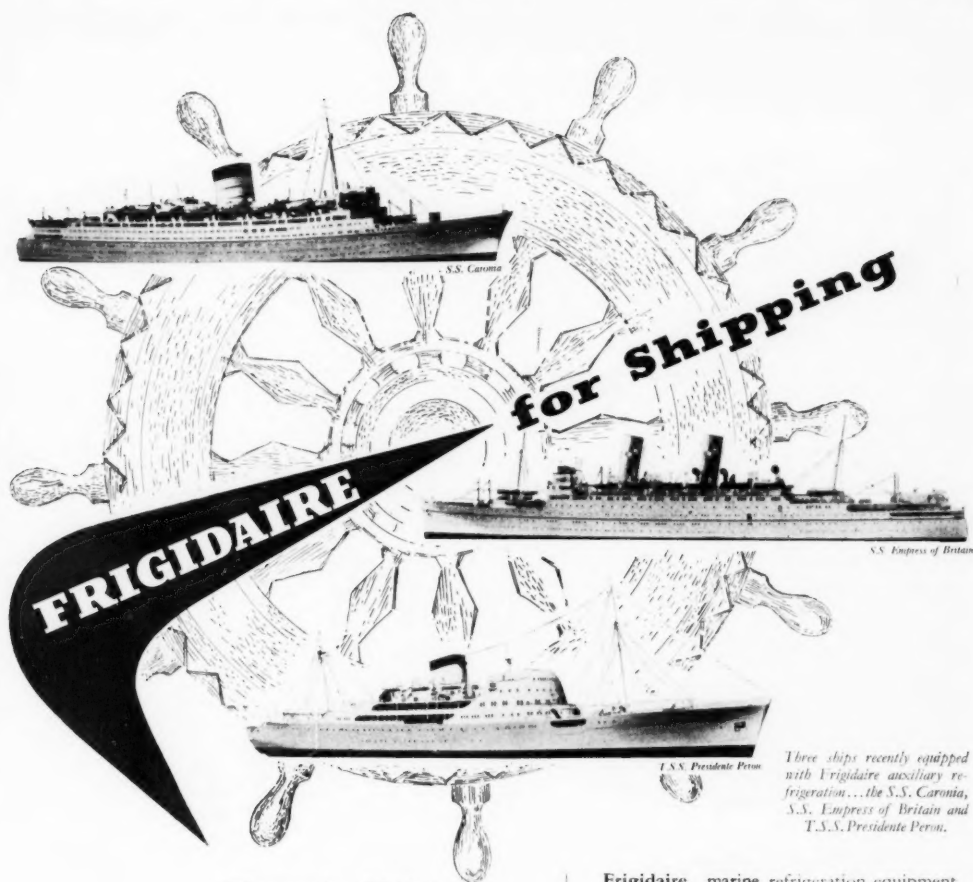
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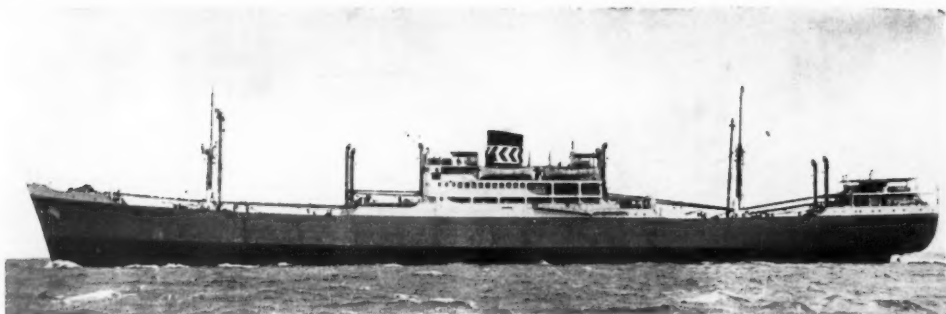
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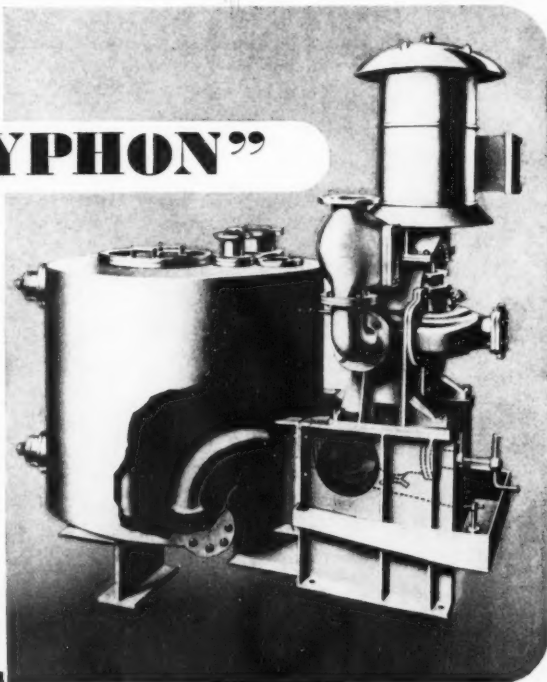
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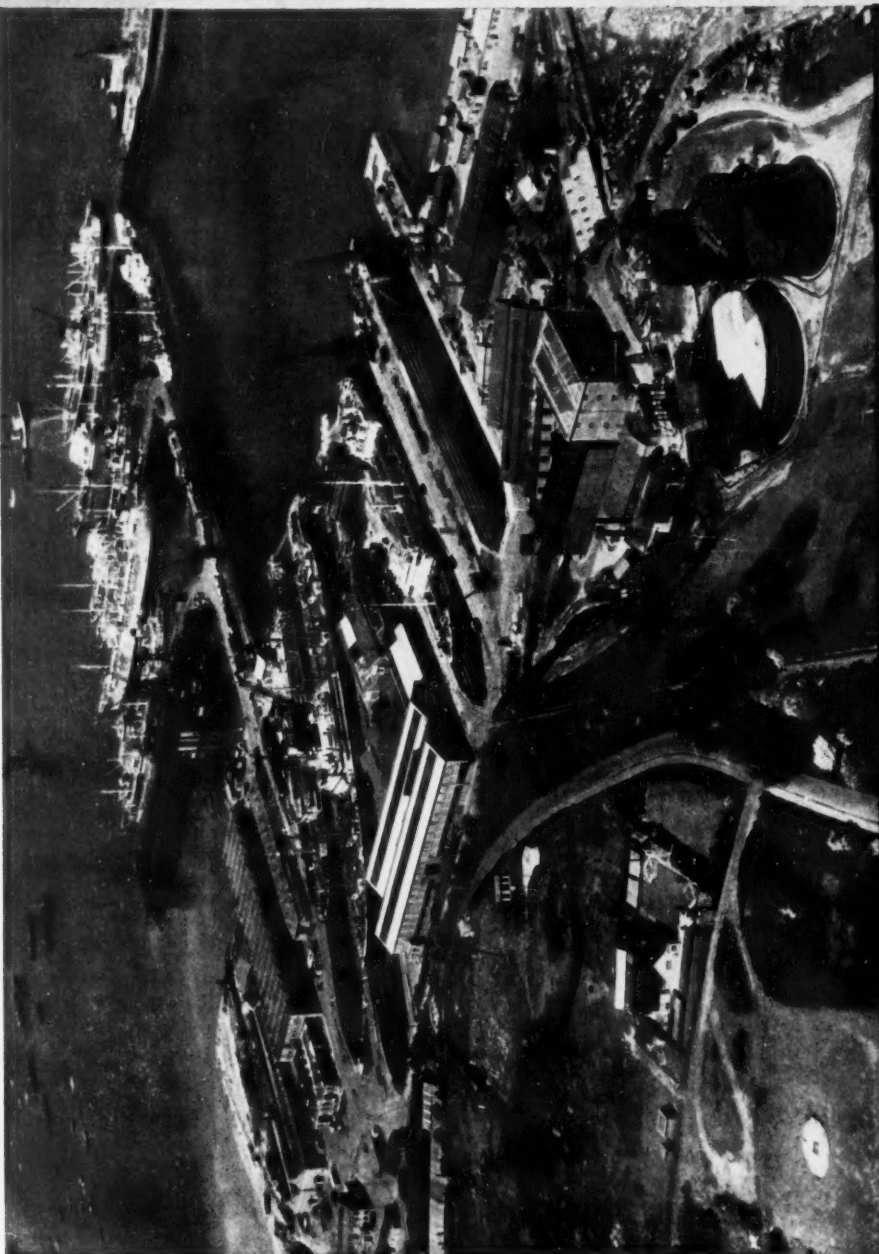
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1883

Chairman and Managing Director of The Shipping World, Ltd.:—SIR ARCHIBALD HURD  
Editor:—PETER DUFF Managing Editor:—RONALD KENDALL, M.C.M.S., A.M.I.N.A. Advertisement Manager:—M. B. FIELD

Annual Subscription 70s.

Head Offices: 1, Arundel Street, London, W.C.2. (Temple Bar 2523)  
Telegrams: "Shipping World," London

Northern District Manager: W. S. Wilson, M.I.E.E., 27 Exchange  
Buildings, Newcastle-on-Tyne. Telephone: Newcastle 27078

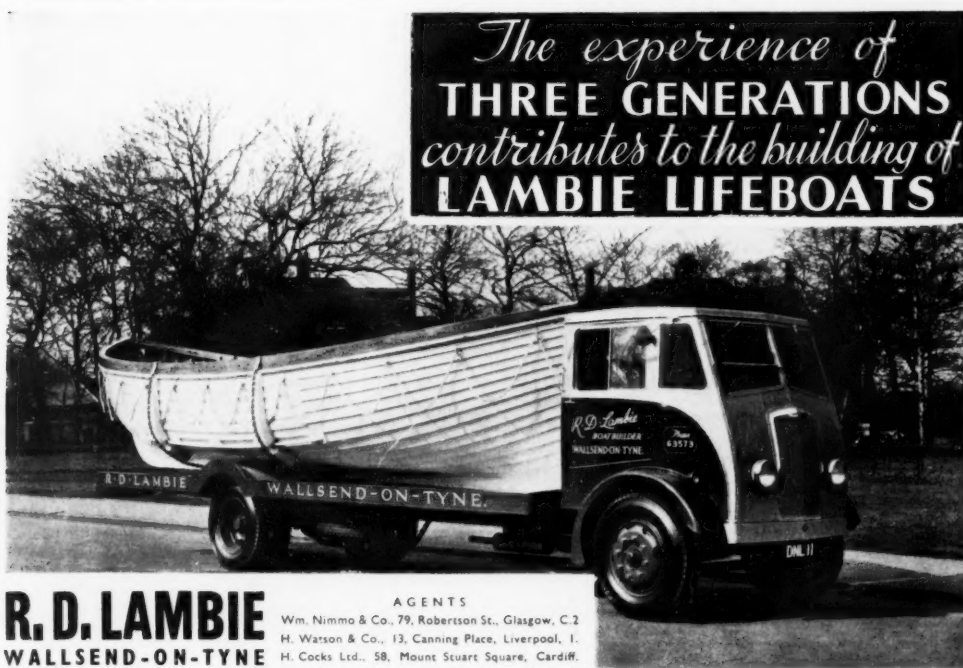
Vol. CXXIV.

WEDNESDAY, MAY 16, 1951

No. 3020

One Hundred Years of Shipbuilding ... ..	439	Recent Publications ... ..	446
Current Events ... ..	439	The Passenger Liner Provence ... ..	447
On the "Baltic" ... ..	443	Light Floats for the Humber ... ..	452
Coal and Oil ... ..	444	Round the Shipyards ... ..	453
Official Notices ... ..	444	Pictures ... ..	454
Switzerland's Merchant Fleet ... ..	445	New Contracts, Launches, Trial Trips ... ..	455
Vickers' Festival Exhibition ... ..	446	Maritime News in Brief ... ..	456

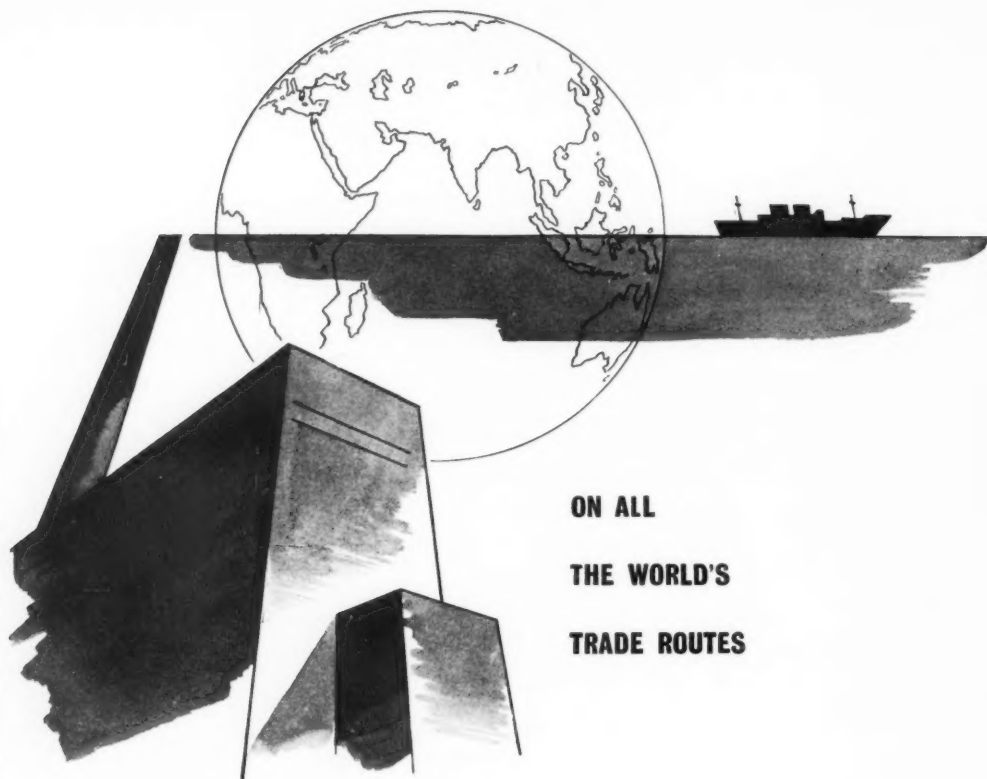
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## THE SHIPPING WORLD

# ONE HUNDRED YEARS OF SHIPBUILDING

AS AN ISLAND country, it is practically certain that shipbuilding in some form has been carried on in the British Isles since man first learned to adapt nature's raw materials for his greater comfort or convenience. The historian may, therefore, ask why the last hundred years should be of such significance as to warrant special consideration, instead of being regarded as merely one century in a process of development over some thousands of years. It should be stressed that though it may be topical at this time of the Festival of Britain to review progress since the 1851 Exhibition, there is more justification than that of topicality when considering the special case of shipbuilding in Britain. The last hundred years has undoubtedly been the century in which most progress has been made, technical developments, new processes and techniques, and improved methods of construction having entirely revolutionised both the shipyards and the ships built in those yards. It may be appropriate to regard the first half of the 19th century as a period in which the inventor and the pioneer in ship construction and propulsion attacked conservatism, and the second half as a time of expansion in shipbuilding using the ideas of those pioneers, developed to more advanced stages.

Thus for example, though a barge had been built in iron as far back as 1789, and the iron vessel *Vulcan* entered service in the Clyde canal in 1817, while the *Sirius*, in 1837, showed that iron plates could be shaped to form a ship capable of crossing the Atlantic, the general transition from wood to iron was not rapid. With the British gift for compromise, iron was used in 1851 for the first composite ship, with frames of iron and hull of wood, and many similar ships were built later. Lloyd's Register published rules for the construction of iron ships in 1855, but so suspect was the new material that the period of classification of such ships was limited until 1863. The *Great Eastern*, that milestone in British shipbuilding, appeared in 1859, and though her lack of commercial success may have satisfied her critics, a later appraisal is merely that she was at least fifty years ahead of her time. Think of building a ship today of twice the length of the *Queen Elizabeth* and of some 400,000 tons gross and one sees

the relative nature of Brunel's achievement. She introduced longitudinal framing, now standard in oil tankers, and she had a double bottom, more than 30 years before this became common in ships. In 1892, the Doxford turret ships appeared and provided a ship type which would now be termed an "economy" ship. The first of the Isherwood ships, with longitudinal framing designed to give maximum strength for minimum hull weight, was built in 1908, while only ten years later a new technique in shipbuilding, the use of welding, was successfully demonstrated by the completion of an all-welded steel barge. This was to be followed in 1920 by the first all-welded seagoing ship in the world, the *Fullagar*, built by Cammell Laird & Co., Ltd.

Progress in marine engineering was not only as rapid; it was complementary. The first steamship to cross the Atlantic used steam at only 15 lb. per sq. in. pressure and had paddlewheel propulsion. The Scotch boiler, so reliable that its basic design is still used in the great majority of ships at present in service, was first fitted in 1862, while the triple-expansion engine, which was to revolutionise ocean shipping, was installed in the *Propontis* in 1874. The Admiralty was quick to adopt forced draught, this being first fitted by them in 1880 though, as is now well known, following the famous Spithead review, it took the unheralded appearance of the *Turbinia* between the ranks of the assembled fleet to convince the doubters that Sir Charles Parsons turbine was worth serious consideration. By 1901, turbines had been used for the first passenger vessel, the *King Edward*, and were to propel that vessel for 50 years. The oil engine had also entered the field, however, the *Jutlandia*, built by Barclay Curle, in 1912, being the first motorship built in Britain, and though progress with oil engines for ships was perhaps more rapid elsewhere until the interwar period 1918-1939, the achievements of the Doxford engine have been such as to make Britain's name rank high in marine engineering history. In short, 1851 to 1951 saw not only a phenomenal advance in shipbuilding and marine engineering, but an unanswerable claim by this country to the title of Shipbuilders to the World.

## Current Events

### The Festival of Britain

MANY PEOPLE fear that the Festival of Britain will result in a heavy loss of money, although some compensation for that loss may be found in added prestige for this country. Whatever the outcome, the times are undoubtedly out of joint for such a celebration, for we are engaged in "hot wars" in the East and in "cold war" in the West, with consequent disorganisation of international trade. There was never a time when shipowners had to contend with so many

difficulties, and never was so much carrying power being wasted, as a consequence of bulk buying, port delays, controls of one kind and another and flag discrimination. All the experts have been thrust aside. The trained diplomatists have had to give way to "missions" which go out from this country regardless of the expense involved, while the experts in buying and selling have been replaced by politically minded negotiators, usually without knowledge or experience. It may be a good thing to ignore all our troubles, not



excluding the increasing gap between our imports and exports, and join in all the distractions of the Fun Fair on the south side of the Thames, a declaration to the world that we are thoroughly enjoying ourselves, but is it not a pretence? Are we as carefree as were our forefathers at the time of the 1851 Exhibition? They staged a display of achievements in a world which was at peace and they went about the business in accordance with sound economic principles, making a handsome profit which was wisely invested and now furnishes year by year money for scholarships and other benefits to the rising generation. The Victorians were wise in their generation. Time will show whether, under present circumstances, we are showing as much wisdom as they did. Now that we are committed to the Festival of Britain, it must be the hope of everyone that good will come of the project, if not directly at least indirectly. It is a display of courage and to that extent may do good, but any advantages which we may gain will have to be paid for at a great price at a time when we are the most severely taxed people in the world, having laid the foundations of a Welfare State of Socialistic follies with the generous aid of the capitalistic Americans.

### A Delicate Matter

In the *Monthly Circular* of the Baltic and International Maritime Conference, attention is directed to the problem "should owners fix direct?" It is admitted that it is a delicate subject. Should owners work the cargoes direct with the charterers or should they employ their own brokers who might contact the charterers or work through the agents of the charterers? It is suggested that it is difficult to lay down any hard and fast rule since conditions vary from trade to trade. In some countries it is quite usual that owners make it a rule to work cargoes through brokers. In other countries this procedure is not followed strictly. When it comes to negotiating with charterers domiciled in a foreign country, it will pay owners many times to work through a broker on the spot. It cannot be denied that brokers working for owners in the big chartering centres are in daily touch with the various freight markets and are thus abreast of the fluctuations of the rates and what the market can stand. One member of the Conference who is both owner and broker, has, in the latter capacity, argued that in his view the low rates of freight in certain markets are due entirely to the fact that "so many Scandinavian shipowners appear to prefer to do business direct, rather than employ a broker on this side". He has come to the conclusion that for the sake of paying a small brokerage they really lose quite a considerable amount of freight, and they preclude any possibility of working up the freight market. He quotes a case where they chartered a ship for a Dutch shipowner at 180s. per ton for *esparto* to the United Kingdom, "which is the highest rate paid for this commodity for many years." The Dutch shipowner employed this member's firm as his brokers and they were able to obtain the top of the market for him. "We telegraphed a similar business to a Scandinavian shipowner and all we had in return was that he was able to work this business direct." What is the consequence? The owner in this particular case will not, it is concluded, get anything like the rate they had been able to obtain for the Dutch shipowner, "because we are on the spot—we can feel how the market is going, and what this particular charterer will be forced to pay." This is one side of the matter, but there is, of course, another one.

### Ore Trading Prospects

THERE ARE indications that the ocean transport of ores of various kinds is likely to form a much higher proportion of the bulk cargo trades than ever before. Tremendous developments are taking place in various parts of the world in the production of steel and of aluminium, and new plants are being opened up or planned which will absorb the output of new sources

of ores in widely different localities of the world. The new demand for ore carriers is already noticeable in the shipyards' order books, and it is likely that the number of vessels on order specially designed for ore carrying will increase as time goes by. The importers of ore are now showing signs of anxiety at the difficulty of securing suitable tonnage for their immediate requirements. In particular the bulk buying department called Biscor (British Iron and Steel Corporation-Ore) is worried about the fulfilment of its programme of iron ore imports for this year. It is reported that Biscor has asked the Minister of Transport to approach the Chamber of Shipping with a request for its cooperation in speeding up the import of iron ore, of which 8,600,000 tons has already been bought and only about 2,500,000 tons shipped so far this year. Meanwhile the speed of iron ore imports is being hampered by delays, not only in loading ports abroad but also in discharging ports in the United Kingdom, and the British Iron and Steel Research Association has given priority to its study of ore-handling methods. An analysis of the handling of over 2,500 ore cargoes in various ports is being made in an attempt to determine the effect of such factors as unloading equipment, type of ore and type of ship on unloading rates. At the same time the relationship between wharf occupancy and delay in waiting for a berth is being considered, and cost factors are being obtained and analysed to determine the effects of various methods of speeding up turn-round. An attempt is even being made also, by a comparison of known performance figures in relation to ship design, to assess the suitability of various types of ship for carrying iron ore. In this way it is hoped to specify the important points in the design of future ore carriers. The results of these experiments will be awaited with interest by shipowners who may wish to build the type of ore carrier which has the best prospects of being taken up on time charter by the big ore importers.

### Lloyd's Festival Exhibition

A DEPARTURE from precedent has been made by Lloyd's, who have arranged for the first time in their history, in connection with the Festival of Britain, to give visitors to London an insight into the workings of this world-famous institution. Any visitor to the City, by calling at the London Information Centre near St. Paul's, can obtain a ticket which will admit him to a remarkable exhibition in one of the galleries of the "Room," on weekdays until September 29. As he emerges from the lift, he will step into a 17th century cobbled street which appears to stretch realistically into the distance. He will then be able to walk into a detailed replica of Edward Lloyd's Coffee House, complete with sawdust, candlesticks, "boxes," copies of the *London Gazette*, pegs with 17th century hats on them, churchwarden pipes, blackboards with shipping intelligence chalked up on them, the "pulpit" from which the "kidney" read out the news (believed to be a feature peculiar to Lloyd's Coffee House), with the waiter and serving wench, as well as the "kidney," in appropriate and picturesque costume. The magnificent mace in one corner is an authentic, if not authenticated, touch which adds colour. The transition from the 17th to the 20th centuries is made through a gallery containing priceless illustrations of the story of Lloyd's. There are, for example, the policy on the *Three Brothers*, dated February 24, 1656, much of whose wording is still used today, the earliest extant copy (1740) of Lloyd's *List*, relics of the *Lutine*, including the last gold bar ever likely to be recovered from the wreck, relics of Nelson, early copies of the Register, prints, models and so on. Finally comes the picture of Lloyd's as it is today—a complete change, with its printing equipment, accounting and tabulating machines, teleprinters and all the machinery for collecting and collating shipping intelligence. A visit to the Nelson Room and a glimpse of underwriters and brokers at work under the shadow of the *Lutine* bell

on the rostrum of the Room round off a unique opportunity to see the hub of the insurance world.

### Initial Allowances for Shipbuilding

THERE IS little satisfaction to be derived from the Chancellor of the Exchequer's slight concession in the matter of initial depreciation allowances for merchant shipbuilding. The abolition of these allowances as from April 5 next year still remains the intention, although an amendment will be introduced excepting from their suspension any payments, even those made after April 5, on account of merchant ships actually under construction on Budget day—that is April 10, 1951. Mr. Gaitskell explained that this exemption would not apply to vessels for which only the contracts had been signed on that day. The concession will apply only to vessels "actually building" at the relevant date. Does this mean that the keels must actually have been laid, or does it mean that the initial allowances will continue if material has already been bought or work has started in the shops? ? Wherever the line is drawn, and it will be difficult to draw, it merely means that vessels which were actually under construction on April 10 and will not be completed before April 5 next year will benefit from the Chancellor's current concession. Unless the Chancellor can be persuaded to take a more enlightened view of the importance of British shipping and its competitive ability in the international field, as well as its vital role in defence, those owners who had already placed orders for new tonnage in the belief that the initial allowances would continue have only two alternatives. Either they will continue to build, and in that event the Chancellor's argument for discontinuing the allowances—to discourage capital investment—will lose its force; or the owners will be compelled to pay the penalty and cancel their contracts, which would accelerate the process of decline in the strength of British shipping which will inevitably happen if British shipowners are deprived of the encouragement from their Government which other shipowners receive from theirs.

### A Coasting Jubilee Year

HIGHLY satisfying results are set out in the 1950 accounts of Wm. France, Fenwick & Co., Ltd., for the calendar year 1950. Group profits rose from £130,000 to £164,000, the latter figure including a special credit of £26,000. The net profit was £183,000 (against £116,000) after a higher depreciation charge, and tax of £133,000. This means that the repeated dividend of 15 per cent was three times covered. To it are added the customary 3 per cent (not subject to tax) from the capital accretion account and a further payment of similar amount to mark the company's jubilee year. The chairman, Mr. Kenneth R. Pelly, warns stockholders that this special jubilee distribution will not be repeated. An interesting point made by the chairman is that the company still has on its books five of the original stockholders. He has been able to calculate how the worth of their investment has grown: £100 of the company's ordinary stock subscribed in 1901 would, after taking into account the various bonus issues made in the past, have yielded some £1,540 gross dividend and, in addition, would have a current market value of about £1,600. That is certainly a most satisfying outcome and a tribute to skilled management under the flag of private enterprise. Group finances were in excellent order at the close of the year. Reserves amounted to £1,693,000 compared with an issued ordinary capital of £750,000. Group current assets were £1,449,000 at that date and included £1,029,000 in cash, tax certificates and quoted investments. These offset the bank loans and overdrafts of £124,000 by a wide margin. The group will, however, need large liquid resources since its capital commitments total £756,000. At the year end the fleet had a book value of £1,670,000; the tonnage in commission was 75,000 tons d.w., with a further 36,000 tons contracted for. Though the chairman is critical of Government controls,

especially in the coasting trades, he looks forward to the next twelve months with "confidence and optimism."

### Good Prospects for Engine Builders

WHAT would appear to be record profits were earned in the calendar year 1950 by John G. Kincaid & Co., Ltd., the makers of boilers and of diesel and other engines and holders of a share interest in the Ardrossan Dockyard, specialists in the building of coasting vessels. Trading and other receipts jumped from £299,000 to £451,000 and, though tax mopped up £275,000, there was left a net profit of £124,000, compared with £94,000. This means that the repeated dividend of 12.5 per cent was about five times covered; a conservative payment permitting transfers of £50,000 to the building extensions reserve, £15,000 to the directors' pension fund and £20,000 to dividend equalisation. Over the years the company has built up a financial position of impressive strength. At December 31 last reserves (excluding £40,000 in the pensions and £240,000 in the future taxation account) amounted to £641,000, or nearly double the issued ordinary capital of £331,250. Liquid funds, moreover, are ample, even when capital commitments of £115,000 are brought into the reckoning. Current assets of £1,439,000, which exceed current liabilities and provisions by £989,000, include £525,000 in cash and £25,000 in British Government securities. The report has nothing to say of trading experience or prospects, but the outlook is surely encouraging. This year the company has taken substantial contracts for ship machinery while the heavy order book of the shipyards promises active and profitable employment for the company's resources over a long period.

### Marine Torsionmeters and Thrustmeters

IT HAS BEEN made clear in the various announcements concerning the programme of work of the British Shipbuilding Research Association that the correlation of tank test data with actual results obtained on the measured mile, and perhaps even more important, in service, constitutes one of the most important items of research. It was natural therefore that particular care should be given to surveying all available types of instruments likely to be required for this purpose, and among these torsionmeters and thrustmeters are the most important. In a paper read before the Institute of Marine Engineers on Tuesday, Mr. R. Cook, of the B.S.R.A., gave the results of a detailed examination of four principal types of torsionmeter, that is, mechanical, optical, acoustical and electrical, and three types of thrustmeter, these comprising instruments which are counterbalanced by weight or hydraulic pressure, or use the deformation of an elastic member, or measure the elastic compression in the shafts using strain gauges. The paper is a most detailed one and will provide the classic work on this subject. Among the conclusions made by the author it is noted that the Siemens-Ford torsionmeter is capable in marine installations of an accuracy of at least  $\pm 2$  per cent over a range of shaft stress from some 2,500 lb. per sq. in. to about 4,500 lb. per sq. in., this range covering the full power condition in most marine installations. It was also thought that the clamping arrangements of the meter were adequate to withstand the acceleration forces encountered in marine diesel installations in all but very exceptional cases, a conclusion which has been reinforced by recent experiences with this instrument during acceptance trials. Thrustmeters in which the thrust is measured by counterbalancing tend to become very complicated and expensive, but where the thrust is measured hydraulically the instrument is simple, robust and easily operated by engineroom staff. The use of an elastic member such as a bellows involves the insertion of a special length of shafting, while its elastic characteristics are uncertain. It was doubtful whether accurate results could be obtained with strain gauges owing to the extremely small compressive strains in

line shafting. It was noted that at the higher values of both steady and pulsating thrust all the thrustmeters employed agreed with one another to within  $\pm 2$  per cent.

### Trawler Building

THE Herring Industry Board's plan for wider powers has encouraged speculation in Scotland as to the possibility of new construction. It will be recalled that the Board has built two drifters which have been used for experimental work with considerable success. One of the major problems facing the industry is the lack of finance to build new boats at current prices, or the refusal to expend such resources as do exist, for this purpose. Whether the Board will actually lay down new type craft is not yet clear, but the move for power to engage in herring fishing argues either use of older boats (many of which are believed to be uneconomic) or the construction of new boats. The future development of this situation will be watched with interest. Meanwhile, the rebuilding of the Aberdeen trawler fleet by means of 25 per cent grants and loans is envisaged in recommendations advanced by the Committee of the Scottish Council (Development and Industry) created to examine this position. A minority opinion of one on the committee recommended that boats should be built only to the order of a Government department or agency for charter to owning companies. It was suggested that ten to twelve new trawlers a year shall be laid down as an adequate rate of replacement. This proposal of Government aid is conditional on reorganisation of the industry by the industry itself. The Committee urged on Aberdeen owners a continued policy of fishing near or middle waters rather than the distant waters, since the latter demands the development of quick-freeze trawlers. It suggested for consideration a diesel trawler of about 100 ft. as the ideal. If these and other proposals are accepted ultimately the smaller Scottish yards would benefit from a steady income from trawler construction. At present relatively little new building has been undertaken by Aberdeen owners.

### Average Adjusters' Meeting

AT THE annual meeting of the Association of Average Adjusters, Mr. Frank Hogg, the retiring chairman, read an erudite and interesting paper on abandonment and subrogation. He put forward the opinion that while in the event of a vessel or other insured interest being validly abandoned to underwriters they can recover more than they paid as a claim, in the case of subrogation underwriters can recover up to the amount they have paid but no more. Mr. Hogg found the perfect example in the case of the *Glencarn*, seized by the Germans at the outbreak of war in 1914. After the war she was recovered and the underwriters, who had paid a total loss of £61,000 to her owners, sold the vessel, which was theirs by abandonment, for £168,000. In addition there was a claim for the profits the vessel would have made had she remained at the disposal of her owners, and under the reparations scheme £140,000 was recovered. The underwriters, who were to the extent of 80 per cent the Government, claimed that they were entitled to this amount, but the House of Lords held otherwise. Underwriters were entitled to the profit made by the sale of the ship because they had acquired property in the ship by abandonment, but any rights they may have had in respect of reparations were rights by subrogation, and having recovered in full the amount of the claim they had paid, and having even made a profit, they were not entitled to recover more under subrogated rights. This case was, of course, only one of many cited by Mr. Hogg and this summary of his views must necessarily be inadequate by reason of the need for compression. This is to be regretted, for the papers read at the annual meetings of the Association of Average Adjusters are invariably important contributions to current opinion on legal and technical points

in which shipowners and underwriters are deeply interested. Incidentally, apart from his learned treatise, Mr. Hogg, dealing with domestic matters, pointed out that to be indemnified in respect of general average a shipowner must insure his vessel on her present-day sound value, while in the case of particular average, with the heavy rise in the cost of repairs, it might well be that the final figure exceeded the sum insured.

### Canadian Radar Research

WHEN the war ended, Canadian radar manufacturers were greatly assisted by the fact that in the closing stages of the war they had been manufacturing a radar set for the Royal and Canadian Navies which was the most suitable British naval radar equipment for use as a navigational set. This was the Admiralty Type 268 set, which had been developed in Canada for use in the coastal forces craft of both navies. It had been in production long enough for the inevitable small defects to be corrected, and the sets in stock in the British Isles, which were released to British shipowners by the Admiralty as an interim measure pending the introduction of commercial sets, were in general found to be very satisfactory. A version of this set, modified somewhat to improve its navigational efficiency, has been in production in Canada since the end of the war. As confidence in radar has grown, however, it has been used increasingly in confined areas where better definition and a shorter minimum range than those of the Type 268, even in its modified version, are required. The Canadian National Research Council's radio and electrical engineering division has recently been engaged in the development of a higher performance set, known at present as the Experimental Navigational and Docking Radar. This set has been undergoing trials in the Council's experimental vessel *Radel II*, a converted Fairmile motor launch which has recently replaced an older and smaller craft. The new set has a very high standard of definition, and has a minimum range of 10 yards. This minimum range is extremely good, probably better than that of any set in production. Its achievement is facilitated by the use of separate transmitting and receiving scanners, a technique also employed in Decca radar. Another instrument under development in the *Radel II* is a radar chart matching device (normally known in this country as a chart comparison unit). It is intended to operate this in conjunction with a new type of echo sounding instrument, enabling depth survey work in harbours and confined waters to be carried out very quickly.

### "WORLD SHIPBUILDING"

#### NEW QUARTERLY JOURNAL

British shipbuilders and marine engine builders may well take pride in the large part which they have played and are continuing to play in the world shipbuilding industry, but it must never be overlooked that this is essentially an international industry, and one in which the race goes to the swiftest, or in this case, to those who build ships which are technically the best at the most economic price. There is therefore every incentive for shipbuilders in all countries, as well as shipowners and their technical staffs, to keep in close touch with the works of their foreign competitors. This has not been easy, however, as it has necessitated the regular reading of a great many technical journals, printed in several languages. Even though many Continental shipbuilders are multi-lingual, the time element also enters into the matter.

In order to provide a regular and reliable channel of information on all aspects of shipbuilding, marine engineering, shiprepairing and the sub-contracting industries, the Shipping World, Ltd., has arranged to produce a quarterly publication entitled *WORLD SHIPBUILDING*, the first issue of which is now available, as an addition to the several maritime publications of the company. The new quarterly has been compiled by the *SHIPPING WORLD* staff and specialist writers in all shipbuilding countries, with Commander A. C. Hardy as consultant editor on foreign shipbuilding and engineering developments and trends. Subsequent issues will appear in August and November of this year and thereafter at quarterly intervals.

# ON THE "BALTIC"

## UNITED KINGDOM COAL EXPORT PROSPECTS

By BALTRADER

RECENT estimates of the surplus of Argentine maize for export are disappointing; hot spells and dry periods are the usual explanation given for the over-optimism of the early forecasts, and this year is no exception in that respect. There is also the circumstance that last year's failure of the crop has left no stocks in hand for internal consumption. Added to this is the half-hearted inducement held out to the growers to increase the acreage of planting and even to pick and shell the whole of the harvest. The Argentine Government, having the monopoly of purchase from the farmers, can name its price and profit thereby, but there is still the law of diminishing returns. For one reason and another we are now told that the exportable surplus of maize is likely to be nearer one than two million tons, which was a previous estimate. The liners may well be able to accommodate a good part of this export in the 12 months from July when the maize is expected to begin to move, and the prospects for the tramps are not, therefore, particularly bright. The outward charterers are expecting to be in the market for vessels to load in the United Kingdom for the Argentine; this is to implement the Anglo-Argentine trade agreement which is understood to have included our delivering 500,000 tons of coal. In view of the competition of other markets and the volume of their commitments for months to come, owners may set a full value on the services of their vessels if asked to carry coal to the Argentine.

### Shortage of Railway Wagons

Talking of coal exports from this country, which must, as far as possible, be continued in certain directions, such as Denmark, the Argentine and Italy, it is an ill wind which blows to no one's advantage. I see that down in South Wales some gleam of encouragement is derived from the shortage of wagons on British Railways. If there are not enough trucks for the long journeys to some of the industrial areas the answer seems to be that the coal, instead of cluttering the pitheads, should be run down the short valleys from the pits to the South Wales ports and exported. The advantage to shipping from such a policy is obvious, because shortage of wagons is one of the frequent causes of delay and waste of shipping in British ports. Vessels ordered to discharge ore, etc., at west coast ports have been at a disadvantage compared with those discharging on the east coast; the latter could cross to Rotterdam for an outward coal cargo, failing a stem at a U.K. coal port, whereas vessels discharging on the west coast have lately found few outward cargoes to load in South Wales. At the same time, it would be an ironical situation if we had to send abroad coal which we urgently require, solely through lack of internal transport facilities.

The accumulation in British ports of motor cars and other general cargo destined for Australia was becoming a serious matter, and it is satisfactory to see that shipping is being found, albeit with difficulty, to maintain our exports in that direction. Stockpiling of food and raw materials will be ruinous if it occupies so much shipping that we are unable to get our exports to market. In addition to a few vessels chartered by the motor manufacturers, the liner conference has time-chartered a number of tramp ships in the past fortnight for a trip out to Australia. They have arranged a surcharge payable by the shippers to cover some of the high present cost of time charter and the uncertain period occupied at the discharging port. The delays which are so much a feature of work in the Australian ports are a handicap in more ways than one to the charterers who arrange for the export of Australian

produce. High rates of freight at a time of worldwide demand can be taken in the stride, but vague dates of expected arrival and sailing make it impossible to plan ahead in order to spread shipments over the right times and places. In the nature of things, charterers have to accept a considerable margin between the earliest date of readiness and the day when they may cancel the charter. They may, in the normal course, be embarrassed by notices of readiness either earlier or later than expected. This element of uncertainty is abnormally present today as shown by fixtures from Australia arranged as a matter of course with a margin of two months between laydays and cancelling date, to allow for delay in discharge of the inward cargo. The position, of course, has been worse in the case of New Zealand, where the waterside workers' strike has locked up a large amount of tonnage for months, to the injury of that country and of the whole Western world, which could find a good use for the idle ships.

### The Freight Market

Grain from North America has been the outstanding feature of the freight market in the week preceding the holiday. At least eight vessels were chartered for wheat from the St. Lawrence to the United Kingdom at 22s. 6d. per quarter, the established rate so far this season. They will be loaded late in June or in July. Some will have taken a previous cargo of wheat home from the St. Lawrence, and will therefore have shifting boards already in position on arrival at the loading port. Recent fixtures of about half a dozen American vessels from U.S. Northern Range to U.K./Continent, May loading, were reported at W.S.A. rates for heavy grain, as well as several American ships from the U.S. Gulf to U.K./Continent, also at W.S.A. rates, for May readiness. W.S.A. rates are at present more than a dollar cheaper than current rates on the open market. The *Irish Plane* was taken for heavy grain from Gulf to West Coast India at 180s., August. Rather more business was arranged for coal from the United States, and a fixture for coal from Hampton Roads to the West Coast United Kingdom at 93s., June, was noted with special interest as it was the first for some time to this country. In the East, Rangoon to Japan, rice, has paid \$18. June/July. Formosa to Malaya 80s., sugar, prompt, and Dungan to Japan 82s., f.i.o., ore. Manchuria to Europe has been a quiet market, but about six ships were taken last week for heavy grain from Dairen to East Coast India at 136s. 3d., June readiness, except in one case which was for June/July at 135s. Several vessels were later secured for this business at 1s. 3d. less. Vizagapatam to Yokohama, ore, was fixed at 133s., f.i.o., May. The Mediterranean was firm with 61s. obtained for ore from Bona to East Coast U.K. The *Everolas* was fixed for heavy grain from North Pacific to U.K./Continent at 150s., June, but that market remains quiet. Business was arranged for sugar from Queensland to the United Kingdom at the unchanged rate of 185s., August 25/October 25, but Australian grain charterers showed little appetite; they chartered a distant vessel from full range Australia to U.K. at 157s. 6d. basis bulk ex-silo, October/December, a reduction of 5s.

### Time Charter Rates

Time charter inquiry increased and rates were firm: *Eastgate* (m.v.), 9,415 d.w., 548,000 ft. bale, has been chartered for two West African rounds at 55s. for the first and 52s. 6d. for the second, delivery U.K., July. The *Westralia* (m.v.), 9,020 d.w., 12 knots on 12 tons, is fixed for 12/15 months at 49s., delivery Continent in June.



# COAL AND OIL

## OIL PURIFICATION IN STEAM SHIPS

THE WORK of Mr. John Lamb in developing purification methods which enable residual fuels to be burnt in diesel engines is well known, and the technique has been widely adopted by owners of motor ships. He has now made the suggestion that these methods of treating boiler oil might also be advantageous when the fuel is to be burnt in steam boilers in the normal way. At a recent meeting of the Oil Industries Club, he stated that one of the new turbo-electric tankers at present on order for the Shell group will be equipped to carry out oil purification on board. It had seemed that, in adopting steam for the new Shell class of 18,000-tons d.w. general purpose tankers, the company would lose much of the benefits of Mr. Lamb's work; it is now apparent that he hopes to apply this technique equally to the group's new ships, should the experimental work be undertaken in the turbo-electric tanker yield satisfactory results. The benefits that might be expected from the mechanical separation of ash from the oil are increased efficiency of boilers, together with a reduction in the work involved in boiler cleaning. Deposits on the tubes of heat exchangers and boilers cause increases in fuel consumption; it has been estimated that an ash layer of no more than 0.03 in. on steam furnace tubes is enough to reduce the efficiency of an ordinary Scotch boiler by as much as 10 per cent. Extraction of the ash prior to the injection of the fuel would go far to eliminate such losses, which the now customary periodical cleaning out of furnaces with the help of soot or ash blowers tries to redress, but is unable to prevent. It is Mr. Lamb's opinion that the use of oil purification will pay dividends as satisfactorily in the cases both of steam turbines and of gas turbines as it has done with diesel engines. As the Anglo-Saxon tanker *Auris* should soon be at sea equipped with a gas turbine in place of one of her diesel engines, he will have the opportunity to experiment with this type of prime mover as well.

### The Persian Oil Crisis

EVENTS in Persia have been moving with such speed that comment in a weekly periodical is likely either to be platitudinous or out of date. It is already apparent that the difficulties are beginning to be seen a little more clearly in Teheran, though there is still a long way to go before improvement can safely be forecast. But the unwillingness of the Majlis to appoint its five members to the oil commission, which presumably reflects the unwillingness of members of the Majlis to undertake the task, is a hopeful sign. The action of the Anglo-Iranian Oil Company in attempting to steer events into a quieter course is to be welcomed, though by the tone of his reply to Mr. Morrison's note the Persian Prime Minister rejected out of hand any idea of arbitration. He could, however, hardly have done less without climbing down completely from his previous position, and that cannot be expected just yet. The damage that will be caused to the economies of the Western Powers should the Persian oil fields become neutralised for any length of time is hard to estimate; at a time when both consumption and production are growing rapidly, the balance between the two may easily be swayed by many factors, of which the availability of Persian oil, despite the large quantities involved, is only one. The most important loss would be the refinery at Abadan, rather than the actual crude. Refinery capacity is fully occupied at present, despite the European programme of refinery construction which is already beginning to show results. Even the short strike at Abadan recently was sufficient to cause a world-wide shortage of bunker oils, which was particularly noticeable from India to the western end of the Mediterranean.

### Spitzbergen Coal Production

IT is planned this summer to ship from Spitzbergen about 400,000 tons of coal, and to increase production next year to 500,000 tons. Part of the coal will be sent to Trondheim and Bergen, in Norway, where installations have been built for turning the coal into briquettes. The two plants each have a capacity of 20,000 tons a year, and this can later be doubled. They will start production later this year, and will make it possible to use Spitzbergen coal more widely. Hitherto, Spitzbergen coal, despite its excellent heating value, has been restricted in use, because it tends to disintegrate into small pieces after being extracted from the frozen coal seams. Apart from briquetting, there are plans in Norway for making coke from Spitzbergen coal. The large chemical concern Norsk Hydro has spent several years developing an electrical method of coking based on a system invented by an engineer, Olaf Jensen. Study has also been made of a low-temperature processing method which has proved very successful in the United States. A Norwegian engineer, L. A. Conradi, who was present at recent tests in Pittsburgh, estimates that a low-temperature coking plant with a capacity of over 300,000 tons a year could be built for about £1,250,000. The coke would be useful not only for domestic heating but also for electric smelting furnaces such as those to be installed at the large Norwegian iron and steel plant under construction in North Norway.

### Coal Bunker Prices

Recent changes in the prices of coal bunkers, announced by Cory Brothers & Co., Ltd., include the following:—

Port	Price	Coal	Rebate
Monte Video	250s. per ton f.o.b. (over 50 tons)	Welsh/ South African	1s. 6d.
Port Said	223s. per ton f.o.b. (over 50 tons)	American/ South African	2s. 6d.
Suez	275s. per ton f.o.b. (over 50 tons)	American/ South African	2s. 6d.
Adcn	188s. 6d. per ton f.o.b.	South African	2s. 6d.

## OFFICIAL NOTICES

### New Companies

CHAPMAN SHIPPING, LTD.—Registered April 25. To carry on business of shipowners, etc. Nominal capital: £10,000 in £1 shares. Directors: F. W. Chapman, 35 Torridon Road, Catford, London, S.E.6; J. J. A. Double, 60 Algernon Road, London, S.E.13.

IMOGEN STEAMSHIP CO., LTD., West Canal Wharf, Cardiff.—Registered April 27. To acquire ships, and to carry on business of shipowners and carriers, and to enter into an agreement with J. & R. Griffiths, Ltd., appointing them purchasing agents and charterers for and on behalf of the company. Nominal capital: £12,000 in £1 shares. Permanent managing directors: A. H. Tucker, 13 M-feking Road, Cardiff; W. G. Davies, Hill Crescent, Y Goodwg, Rhiwbina, Cardiff.

[Information from *Jordan's Daily Register of New Companies*]

### Increases of Capital

THOMAS REID & SONS (PAISLEY), LTD., boiler-makers, etc., 39 Thread Street, Paisley, increased by £80,000, in £1 ordinary shares, beyond the registered capital of £20,000.

T. W. GREENWELL & CO., LTD., ship-repairers, etc., South Dock, Sunderland.—Increased by £300,000, in £1 shares, beyond the registered capital of £200,000.

JOSEPH L. THOMPSON & SONS, LTD., shipbuilders, etc., North Sands Shipbuilding Yard, Sunderland.—Increased by £150,000, in 1,500 shares of £100 each, beyond the registered capital of £450,000.



# SWITZERLAND'S MERCHANT FLEET

A WARTIME NECESSITY : EXPANSION PLANNED AGAINST FUTURE CONTINGENCIES

By E. A. BELL

APRIL 17, 1941, marked the date of the decision taken by the Swiss Federal Council authorising Swiss maritime shipping under the Swiss flag. The idea of Swiss maritime shipping originated as far back as 1864, but the plan then formulated failed, mainly, it has been stated, due to the opposition by France and Prussia, both countries which looked with disfavour on the idea of seagoing vessels owned by non-maritime countries. Not until 1921, when the principle of maritime shipping by non-maritime countries was laid down by the Barcelona Conference, did the Swiss plan, still lingering through the years, become a feasible proposition. Advantage of the Barcelona declaration was taken in the interwar years also by other Continental countries located far from any sea coast, such as Czechoslovakia (with her ships based on Hamburg), Austria (Trieste) and Hungary, the latter country developing a special type of combined Danube-seagoing vessel.

As far as Switzerland was concerned, only the dire necessity brought about by the war prompted the creation of a seagoing fleet under the Swiss flag, although preliminary steps in that direction had already been taken before the outbreak of hostilities. The two first seagoing ships to be owned and operated by a Swiss shipping concern (the Swiss Shipping Company), s.s. *Calanda* (built 1913) and s.s. *Maloja* (built 1906), were bought from a Panamanian concern in January 1940, at a price of Swiss Fr.3,570,000 for both vessels. This price subsequently met with much criticism when it became known that only four months earlier both ships had been available for Swiss Fr.750,000. Under the circumstances prevailing during the war, however, Switzerland was fortunate in having secured these ships. Their purchase had been proposed by the Syndicate of Swiss Gas Works with a view to securing tonnage for the transport of coal from Great Britain, Poland and France to Rotterdam, thence by way of the Rhine to Basle. The Syndicate entrusted the realisation of this scheme to the Swiss Shipping Co., a mixed-economy Rhine and sea shipping company in which the Swiss Confederation, the Swiss Federal Railways, various Cantons, the Zurich municipality, as well as a number of Swiss industrial undertakings, also participated.

## State-owned and Chartered Ships

Although proposals submitted by private interests for the creation of a larger fleet of Swiss seagoing

TABLE I.—SWISS MERCHANT SHIPPING IN 1941

Name	Built	Tons gross	Tons d.w.	Notes
Swiss Shipping Company :				
s.s. <i>Calanda</i> ...	1913	4,163	7,470	Sold Denmark, 1946
s.s. <i>Maloja</i> ...	1906	—	2,650	Torpedoed, 1943
s.s. <i>Albula</i> ...	1910	1,220	2,030	Sunk Marseilles, 1944, refloated, sold as scrap.
Maritime Suisse S.A. :				
s.s. <i>Generoso</i> ...	1896	1,437	2,260	Sunk by mine, Marseilles, 1944
s.s. <i>Zurich</i> ...	1893	1,928	2,808	Ex-Ergo (Finnish). Wrecked and scrapped, 1946
Suisse Atlantique S.A. :				
s.s. <i>St. Cergue</i> ...	1937	4,260	7,600	
Nautilus S.A. :				
s.s. <i>Lugano</i> ...	1898	6,941	9,183	Ex-Semen. Operated by Swiss Shipping Co. until 1946.
State-owned vessels :				
s.s. <i>St. Gothard</i> ...	1911	5,461	8,340	
s.s. <i>Chasseral</i> ...	1897	2,928	4,208	
s.s. <i>Eiger</i> ...	1929	4,386	8,137	Ex-Hadiotis (Greek).
m.v. <i>Seantis</i> ...	1915	4,349	6,690	Ex-Norseland (Norwegian).
Green vessels under charter :				
s.s. <i>Helene Kulukundis</i> ...	1938	5,500	10,000	
s.s. <i>Marpossa</i> ...	1919	5,500	8,732	
s.s. <i>Master Elias Kulukundis</i> ...	1938	5,500	10,000	
m.v. <i>Kassos</i> ...	1939	5,200	9,535	Built by Wm. Dowlford & Sons, Ltd
s.s. <i>Mount Aetna</i> ...	1929	4,200	7,933	
s.s. <i>Thetis</i> ...	1930	4,100	7,600	
s.s. <i>Nereus</i> ...	1937	5,205	9,500	
s.s. <i>Stavros</i> ...	1925	4,900	9,214	

vessels found little support at first from the authorities, the Swiss War Transport Office was not slow in taking the steps required to secure neutral seagoing tonnage for the carriage of essential and vital overseas commodities to certain maritime ports and thence by other means to Switzerland. In the reverse direction that tonnage, placed under the Swiss flag, would enable the Swiss export trade with overseas countries to be maintained. Hence the chartering by the Swiss War Transport Office at the beginning of the war, for the duration, of 15 Greek vessels (all owned by one concern) totalling 120,000 tons d.w. They were employed on trans-Atlantic and Mediterranean routes, with Genoa and Savona as their European terminals. Europe-bound, the ships were intended to carry mainly cereals and coal.

This plan worked fairly well until October 1940 when Italy involved Greece in war. As a result of this and the collapse of France a few months earlier, the Greek ships under the Swiss flag had to discontinue their operations, a state of affairs which lasted for various months. After prolonged negotiations with the Allies and their opponents, Lisbon was conceded as port of discharge of the Swiss-owned commodities carried by the Greek vessels. An agreement concluded between Spain and Switzerland enabled the goods discharged at Lisbon to be taken to Genoa by certain Spanish vessels. In addition, a number of Portuguese sailing ships with auxiliary motors were also chartered for this trade. An expensive, though imperatively necessary, overland route enabled this precarious shuttle service to and from Genoa to be supplemented as a result of a further Spanish-Swiss agreement, concluded on March 27, 1941, whereby Swiss-owned and operated convoys of motor lorries were allowed to convey Swiss overseas imports and exports between Barcelona and Bilbao on the one hand (from or to Lisbon) and Switzerland (through France) on the other. Furthermore, 200 Spanish railway wagons, wrecked during the Spanish Civil War, were repaired by the Swiss for their exclusive use between Lisbon and the French frontier, the difference in railway gauge necessitating transfer at the French frontier.

This precarious and extremely costly transport system prompted the Swiss War Transport Office to proceed with the purchase of vessels to establish its own shipping services, despite the decreasing availability of tonnage on the market. The legal side was

TABLE II.—SWISS SEAGOING FLEET IN 1950

Owners	Name	Built	Tons gross	Tons d.w.	Notes
Swiss Shipping Co.	m.v. <i>Cristallina</i>	1949	2,351	3,000	Built by Wm. Gray & Co. Ltd.
do.	m.v. <i>Carona</i>	1949	2,351	3,000	
Suisse Atlantique S.A.	m.v. <i>General Guisan</i>	1938	5,142	9,140	Built by Wm. Gray & Co. Ltd.
do.	s.s. <i>Lausanne</i>	1948	4,904	8,920	Purchased 1950
do.	s.s. <i>St. Cergue</i>	1937	4,260	7,600	
Nautilus S.A.	s.s. <i>Chasseral</i>	1897	3,128	4,064	Taken over from Swiss War Transport Office
do.	m.v. <i>Seantis</i>	1915	4,349	6,690	
do.	s.s. <i>St. Gothard</i>	1911	5,461	8,339	
do.	s.s. <i>Ticino</i>	1920	6,527	9,841	
do.	s.s. <i>Certenaga</i>	1920	6,404	10,300	Tanker, sold in 1950.
Transports Maritimes Suisse-Quatremer S.A.	m.v. <i>Anunciada</i>	1948	5,370	9,300	Company formed early 1949
San Giorgio S.A. di Navigazione	s.s. <i>Generoso</i>	1913	1,595	2,755	
Keller Shipping S.A.	m.v. <i>Laupen</i>	1948	468	800	Built in Italy
do.	m.v. <i>Murten</i>	1942	511	670	
Brag Maritime S.A.	m.v. <i>Misox</i>	1949	616	800	Ex-Elso (Norway). Company formed in 1949.
Lloyd Seeschiffahrt A.G.	m.v. <i>Simplon</i>	1944	455	470	
Soc. Auxiliaire de Transports S.A.	s.s. <i>Ville de Geneve</i>	1915	1,255	1,700	
Marivins S.A.	s.s. <i>Leman</i>	1947	320	440	Wine tanker built in Italy
Galea A.G.	s.s. <i>San Moritz</i>	1920	5,168	9,000	Tanker
Roger de Perrot	s.s. <i>Neuchatel</i>	1930	9,555	14,500	Tanker

settled by the passing early in April 1941 of Swiss legislation relating to maritime shipping, and the efforts made by the War Transport Office jointly with private interests resulted in the purchase of nine vessels. These, in addition to the *Calanda* and *Muloja*, totalled approximately 62,000 tons d.w. Four of these, shown in Table I, were owned and operated by the Swiss War Transport Office, while the other seven were privately-owned and operated.

This odd collection of vessels, apart from those on charter, was fitted with reciprocating engines of between 2,000 and 3,000 h.p. (with the sole exception of the twin-screw motorship *Sacotis*). Developing 8 to 9 knots only, and having an average age of about 36 years, it suffered substantial losses during the war, not exclusively through war damage. By the end of 1946, only seven of the Swiss-owned ships, including the four State-owned ones, were left. By this time, however, the War Transport Office, considering its rôle terminated, offered its vessels for sale before going into liquidation on January 1, 1948. The *Eiger* was purchased by the Swiss Shipping Co. in the spring of 1947. Renamed *Cristallina*, she was passed on to a Panamanian concern in December 1948. The other three vessels have been acquired by the Nautilus concern.

#### Redevelopment and Plans for the Future

The taking over of the four State-owned ships by Swiss private interests confirmed the latter's intention to continue maritime activities in peacetime and, possibly, to expand them. What was needed, however, was a rejuvenation and modernisation of the fleet, along with an increase of tonnage. Conditions during the war had fully justified the existence of the Swiss seagoing fleet, and the private interests concerned saw no reason why that fleet should be disbanded after the war. In normal times, Swiss imports of cereals, fodder, sugar, rice, edible fats and oils, and of colonial produce generally, from overseas countries total about 1,200,000 metric tons per annum (in addition to imports of industrial raw materials from overseas), and it was thought that a part at least of that volume could profitably be carried in Swiss bottoms, with the additional advantage of saving some of the freight otherwise payable to foreign carriers. Before the war, this annual outlay amounted to some 40 to 50 million Swiss francs



Vickers' Festival Exhibition

The photograph above shows part of the Festival Exhibition which was opened at Vickers House, Broadway, London, S.W.1., by Lieut.-General Sir Ronald Weeks, chairman of Vickers, Ltd. The large map illustrates the exact position of every Vickers-built passenger ship on January 1, 1951. Ships built by Vickers since the war include the *Ocean Monarch*, *Rangitoto*, *Chusan*, *Himalaya*, *Orcades* and *Oronsay*, the last of which enters service this month. Some 200 products manufactured for a variety of industries are displayed, including VSG variable-speed gear, "loco" rubber and plastics, Palmers Hebburn constructional steelwork, and Vickers' aircraft

(then £2,000,000 to £2,500,000). The operation of passenger services was, however, considered to be outside the scope of Swiss shipping, although some of the vessels added in recent years have accommodation for a limited number of passengers.

Additional shipping companies have been formed in Switzerland in recent years, and the total of seagoing ships under the Swiss flag numbered 19 units aggregating 100,989 tons d.w. by the end of 1950. It has been stated that, acting on the initiative of the Confederation, various Swiss owners have placed orders for new ships totalling about 60,000 tons d.w., which would increase Swiss tonnage to some 160,000 tons d.w. in due course. Most of the vessels in service and ordered are of the shelterdeck type. The expanding interest in maritime shipping has recently been confirmed by the formation of a joint Swiss-Italian shipping company reported simultaneously from Antwerp and Genoa early in the current year.

#### RECENT PUBLICATIONS

The Expanded Rubber Co., Ltd., has produced a new leaflet giving details of "Onazote" lifebuoys and buoyancy fittings.

Drysdale & Co., Ltd., have produced a new booklet describing the patent "Pneupress" system for water supply in ships and buildings.

The current issue of the *G.E.C. Journal* contains an article entitled "Characteristics of fractional horsepower single-phase induction motors" by the late E. K. Bottle.

The current issue of *The Log*, house organ of Furness, Withy & Co., Ltd., contains some interesting photographs of ice conditions on board the *Brazilian Prince* in Arctic waters.

The latest issue of *The Welder*, published by Murex Welding Processes, Ltd., contains a description of the welding used in the steam trawler *Andanes*.

The 1951 edition of "The Engineer" Directory and Buyers' Guide has now been published by *The Engineer*, 28 Essex Street, London, W.C.2, price 2s. 6d.

The latest edition of *Murex Review*, published by Murex, Ltd., contains articles on the manufacture of cemented tungsten carbide and on the production and applications of zirconium.

The Quasi-Arc Co., Ltd., has issued Technical Circular No. T.C.892, describing the "Unionmet" automatic welding process, for which the company is the sole licensee in the United Kingdom.


A collection of humour with a nautical flavour, comprising cartoons, anecdotes and jokes, under the title *Laughter Afloat* has been published by S. Evelyn Thomas, 23 Montagu Square, London, W.1, price 1s. 6d.

The Royal Society of Arts has reprinted in booklet form the series of six papers read during the last quarter under the title *A Century of British Progress, 1851-1951*. They include "A Century of British Commerce," by Mr. A. De V. Leigh, secretary of the London Chamber of Commerce.

The current trade list (No. 7750) of the Electrical Power Engineering Co. (Birmingham), Ltd., relates to surface fan-cooled three-phase squirrel-cage motors, while No. 1151 relates to the natural cooled range from  $\frac{1}{2}$  to 25 h.p. The externally cooled flameproof squirrel-cage motor was first introduced by this company last year and its design supplements the plain TE naturally cooled Buxton certified flameproof motors, both A.C. and D.C., which the company has been building for more than 20 years. All the machines listed comply with B.S.229 for flameproof enclosure and with B.S.168 or 170 for electrical performance. They are, in addition, built to comply with the rules of Lloyd's Register for electrical equipment in ships operating in tropical waters as well as to the rules of other leading classification societies.

The following have recently been elected members of the Baltic Exchange:—

Messrs. E. G. Woodward (C. H. Rugg & Co., Ltd.); J. Greenwood (Lons Dreyfus & Co., Ltd.); F. A. Strass (F. A. Strass, Ltd.); A. F. Hull (Ellerman Lines, Ltd.); J. W. Common (Common Brothers, Ltd.); W. D. Cracknell (Robins Egan & Co., Ltd.); H. F. Brewer (Evans & Reid Coal Co., Ltd.); R. F. Gilders (Muir Young, Ltd.); S. W. Cooper (Westcott & Laurance Line, Ltd.); A. G. Tsaviris (Tsaviris (Shipping), Ltd.); S. N. Embiricos and S. H. Borcham (Coulthrops, Ltd.); P. T. Bald (Swedia Steamships (London), Ltd.); H. M. Sullivan (Stanley & John Thompson (Management), Ltd.); E. A. Barrington (Henry Gardner & Co., Ltd.); C. I. Willan (Chapman & Willan, Ltd.) and W. D. Cussen (Argentine, Ltd.).



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was supplied by

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## PASSENGER LINER "PROVENCE"

FAST VESSEL FROM THE NEPTUNE YARD FOR FRENCH OWNERS

THE TWIN-SCREW passenger and cargo steamship *Provence* has now entered the service of her owners, Société Générale de Transports Maritimes à Vapeur. Specially designed for trading between France, Italy and South America, the *Provence* is the tenth vessel built for the owners at the Neptune yard of Swan, Hunter & Wigham Richardson, Ltd. On her trials, which were carried out at the end of February, the vessel attained a speed of over 20 knots. The principal particulars of the vessel are as follows:—

Length overall	579 ft. 7.5 in.
Length b.p.	540 ft.
Breadth moulded	34 ft. 7 in.
Depth moulded to bulkhead deck	16,100 tons
Gross tonnage	8,300 tons
Deadweight tonnage	26 ft.
Mean draught	256,500 cu. ft.
General cargo	116,000 cu. ft.
Refrigerated cargo	10,000 cu. ft.
Refrigerated stores	
Complement:	
1st class	139
1st or tourist	18
Tourist	81
Tourist or third	14
Third class	852
Third in dormitories	200
Officers and crew	260
Total	1,564
Speed	20 knots

The *Provence* was built under the special survey and to the requirements of the Bureau Veritas and French Government requirements; Registro Italiano; International Convention; Italian Security and Emigration Authorities' regulations. The refrigeration installation is to the requirements of Lloyd's Register, Bureau Veritas and Registro Italiano; also to the full requirements of the British Ministry of Transport, and the British Factory Act and Docks Regulations, Panama and Suez Canal tonnage measurement regulations.

The ship has a curved raking stem of rounded plate, a cruiser stern, a streamlined rudder and a cellular double bottom designed for the carriage of oil fuel, fresh water and water ballast; deep oil fuel bunkers are arranged forward of and at the sides of the boiler room. The forward peak is arranged for fresh water or water ballast and the after peak for water ballast. There are three complete decks and a lower deck in the forward and after holds, a combined bridge and fore-castle, a promenade deck, boat deck and navigating bridge amidships. There are six cargo holds, three of which are arranged for refrigerated cargo, and four cargo lower tweendecks, three of these being for the carriage of refrigerated cargo. There are also five main tweendecks for cargo or passengers and one upper tweendeck for cargo or passengers, and on D deck a tweendeck space for motor cars.

The design of the funnel was given careful consideration.

With the object of keeping the decks clear of smoke and fumes, and at the same time maintaining funnel proportions appropriate to the general appearance of the ship, a number of designs were considered. The one adopted is due to Monsieur Lasceroux (patentee) and is the result of a series of tests made in a wind tunnel. The funnel has a somewhat unusual but pleasing appearance, and incorporates a system of louvers and deflector plates, designed to ensure that the flow of funnel gases and other products of combustion are directed clear of the ship's deck.

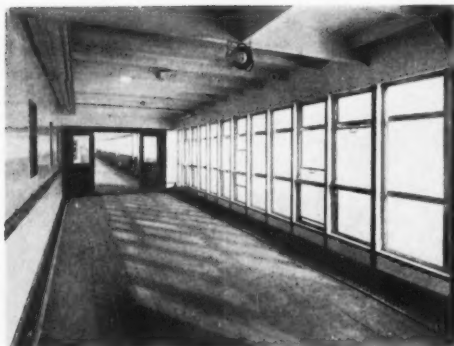
### Passenger Accommodation

The passenger accommodation has been designed and arranged on up-to-date lines with modern furnishings and fittings. The decoration of the first-class public rooms was designed by M. Andre Arbus, of Paris, and carried out by the Société Rousseau, also of Paris. The lounge is remarkable for the nobility of its proportions. Square columns in green bronze lacquer sprinkled with gold support the plaster ceiling with luminous recesses. The walls are completely panelled in sycamore marquetry, checkerboard pattern, broken up by four large recesses in green bronze lacquer. Above the staircase a large decorated mirror reflects the architecture of the room. On each side doors, made completely of glass, lead to the reading room and the writing room. Two other glass doors lead to the smoking room, which is panelled with polished Cuban mahogany; large settees covered with green tartan wool cloth occupy the curved recesses. A large folding glass screen supplied by Henry Hone & Sons, Ltd., leads on to the promenade deck. This firm also supplied the four bay windows in the smoking room (which are so designed that they can be used as showcases).

In the dining saloon the luminous ceiling in Venetian hand-made glass comprises more than 80 boxes of 4,000 main parts in iridescent glass sprinkled with gold. Two mirrored columns and a large decorated mirror complete this unique glass arrangement, which reflects to infinity the lights from the bronze table lamps. 'Dragons' blood lacquered panels decorated with sea trophies hang on one side of this room. The three other sides are made up completely of windows. The floor is in rubber carpet in the form of green lozenges.

First-class, tourist and third-class staterooms and the first-class entrance forward have been constructed throughout by the shipbuilders. The first-class accommodation is on B and C decks. The walls of many staterooms are lined in Gaboon mahogany veneered in either peroba, cherry mahogany, birds eye maple or satinwood. Other staterooms have the walls covered with old bleach and figured green damask, and some of the rooms have walls painted in soft pastel shades. The furniture is polished to tone with the





The promenade

walls. Large sliding windows are fitted in each cabin having polished hardwood jalousies and curtains. Some 215 windows were supplied by J. Stone & Co. (Charlton), Ltd. Wood cot beds and settee beds with inferior spring mattresses are fitted. The window curtains are of Old Bleach Linen. Electric lights are fitted over the dressing tables, beds, and in the centre of ceilings; bell push, telephone and wall socket for electric razor or iron are also supplied. The stateroom toilets and bathrooms are lined full height with various colours of "Warerite" fastened with chromium plated strips.

The decoration of the tourist-class smoking room and bar, and dining saloon, were carried out by B. Spade, of Paris. The smoking room walls are covered with almond green hide with gold filets, and framed in polished cherrywood. The architecture is accentuated by incurved pilasters on which double wall lights are fixed. The furniture is composed of polished cherrywood tables and seats covered with hide of a darker green than the walls. Above the bar counter, a multicoloured mirror engraved by Lardin, decorates the back. The tourist-class dining saloon is situated on the centreline abaft the galley, and this space has no outside windows. The longitudinal walls include decorated mirrors in the panelling in amber lacquer with gold and silver motifs. Polished ash pilasters divide the lacquered panelling and give a vertical aspect to the architecture.



First-class writing room

The tourist-class passengers are on E deck in two-, three- and four-berth rooms. The bulkheads are in Oregon pine, plywood painted, with painted flush doors. In each cabin there are provided for the use of passengers metal tubular beds having a short lee-rail, the upper bed to hinge up, hinged table and chairs, and two wardrobes. Two washbasins are fitted in the four-berth rooms. The deck is covered with rubuleum on composition in cabins and passage-ways. The sidelights have Old Bleach curtains, Ladies' and gentlemen's lavatories are provided adjacent to the accommodation, also bathrooms having full size bath and a bidet. A suitable number of showers are fitted, all being supplied with hot and cold fresh water. The floors of the various lavatory spaces are covered with tiles on Semtex.

#### Alternative Passenger or Cargo Arrangements

Either cargo or third-class passengers are also carried in spaces on F deck, the passengers' accommodation being arranged with portable bulkheads dividing the spaces into two-, four-, six- and eight-berth rooms. The cabins are painted with fire-resisting paint and have galvanised iron beds with short lee-rail. A number of these beds are extra wide; a steel locker is provided for each person. Hat and coat hooks, shelf with mirror, and folding chairs are provided in each room. In No. 1 main tweendecks on F deck a dormitory for 96 third-class passengers is provided, having galvanised iron tubular beds with lee rails. Where the accommodation on F deck is over refrigerated spaces the deck is covered with 1-in. thick "Durastic" on 2-in. thick slab cork. Other spaces have 3/4-in. thick "Aranbee," and "Terrazzo" is fitted in the lavatory spaces. On F deck the ladders are of steel, as a precaution against fire; and these ladders are portable for removal when cargo is carried in these spaces. Another dormitory for 104 passengers is in No. 3 lower tweendecks on G deck. The steel deck is left bare in this space. Portable grills are fitted round the hatch. In all the tweendeck spaces where either cargo or passengers are carried the ship's side is lined with two thicknesses of 1-in. thick plywood painted on both sides with fireproof paint.

A large third-class dining saloon is on D deck, with a seating capacity of 586 persons. The seats are of tubular steel, revolving type, upholstered in fawn "Plaxide." Large tables are arranged at the ship's side, and tables to seat four and six persons at the centre. The table tops are covered with linoleum and fitted with polished fiddles. The walls are lined in Oregon pine plywood, painted, with polished mahogany mouldings, etc. The ceiling is bare steel, painted; the floor is covered with linoleum in a simple design laid on composition underlay. Old Bleach Linen curtains are fitted to the sidelights. The lounge for the third-class passengers is on E deck forward, being fitted up with various types of chromum-plated tubular steel tables, chairs and settees. The walls are lined in plywood, gaboon mahogany for half-height forming a dado, and painted above. The ceiling is left bare steel and painted. Polished mahogany writing tables are also fitted. The deck is covered with a simple design in decorative linoleum on underlay. A bar is provided with all the latest modern fittings.

#### Officers' and Crew Accommodation

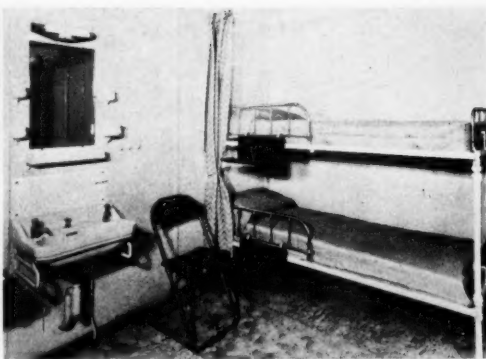
The captain has a suite of large rooms, comprising day-room, bedroom and toilet. The 2nd captain and chief engineer each have a commodious cabin, toilet and office and these, together with the other officers' and engineers' cabins, are well and comfortably furnished to modern standards. A combined messroom and lounge separated by a screen is provided for officers and engineers on A deck. Three doctors are carried (French, Italian and Spanish) in cabins on C deck. The Italian commissary has a large room, with private toilet.

Crew accommodation is all in accordance with latest requirements of the Seattle Conference, the petty officers being in single-berth cabins; the stewards and cooks in six-berth rooms; and seamen and greasers in three-berth rooms, all in accordance with good modern practice. Separate lavatory spaces are provided for each department, having washbasins, wash troughs, showers, all with hot and cold fresh water supply, and water closets with salt water flushing. Separate messrooms are also provided on D deck for each department and a large recreation room is on the same deck.

The first- and tourist-class galley on D deck has been fitted with the most modern equipment and is electrically operated throughout. All the galley and pantry equipment was supplied by Henry Wilson & Co., Ltd. Adjacent to the galley are a butcher's shop, bakery and pastry cook's shop. The third-class galley is close to the first-class galley and is also electrically operated. The pantries for all classes are situated on C and D decks. Electric lifts are provided for access to the extensive storerooms, which are on F deck



First-class stateroom



Tourist stateroom

below. The crew's galley is arranged aft close to the crew's messrooms on D deck. In all the galleys, pantries and sculleries, etc., the deck is covered with cement and tiles, the tiles being of non-slip type. Tiles are also fitted on the walls of the galleys.

On A deck a swimming bath is provided for the use of passengers, lined in shaded green tiles. The bath is surrounded by bronze handrails and teak seats. Ladies' and gentlemen's dressing rooms are provided, including toilet accommodation. A large hospital is arranged aft on C deck, consisting of several separate wards in addition to three isolation wards, all having separate bathrooms, lavatories and pantries. The operating room, dispensary and sick bay attendants are also accommodated in the same deckhouse.

#### Fire Precautions

The vessel is protected against fire by the construction of a system of first and second class fire-resisting bulkheads in accordance with the French Regulations of 1934, but with certain modifications increasing the protection in accordance with the 1948 regulations. All stairways are of steel frame construction, and steel type B fireproof bulkheads generally insulated are fitted round staircases. In addition a combined CO<sub>2</sub> fire extinguishing and smoke detecting system is fitted throughout the cargo spaces and storerooms by the Walter Kidde Company, and the Compagnie Francaise du Signum has provided fire detectors for fitting throughout the accommodation, all to the requirements of the French Government regulations.

The fresh water for ship use is stored in double bottom and deep tanks, and a distilling plant has been installed capable of producing 220 tons of fresh water every 24 hours. Hot and cold fresh water and salt water service supplies have been led to all the passenger and crew accommodation, galleys, pantries, etc., and provision has been made for

cooled fresh water supply to the dormitories and certain pantries. The water services systems are operated on the pressure tank principle by means of Worthington Simpson pumps. Steam heated calorifiers have been installed for heating the fresh and salt water required, and a connection has been led from the distiller to the freshwater calorifier for use when the distiller is in operation. A 60-kW electric heating battery has been installed in the fresh water calorifier for port use. The fresh water plant was supplied by United Filters & Engineering, Ltd.

The sewage installation consists of four ejectors, each of 150 gallons capacity, two forward and two aft. The ejectors are operated by compressed air, supplied by two rotary compressors driven by 20-h.p. motors with automatic starters and pressure switches. A float-actuated valve controls the admission and exhaust of compressed air to the ejectors, so that discharge takes place below the waterline. The apparatus was supplied by Adams-Hydraulics, Ltd., of York. The sanitary fittings were supplied by Shanks & Co., Ltd., of Barrhead, Glasgow, the basins being of vitreous china and the W.C.s of the latest siphonic pattern.

A large laundry is provided with modern electrical equipment capable of dealing with the needs of passengers and crew. The equipment supplied by D. & J. Tullis, Ltd., includes one 36 in. x 54 in. washing machine with water saving tank, two presses, a hydro extractor, a single roll ironer and a drying tumbler.

#### Heating and Ventilation

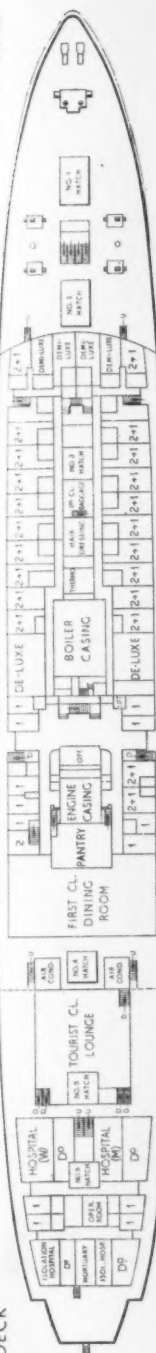
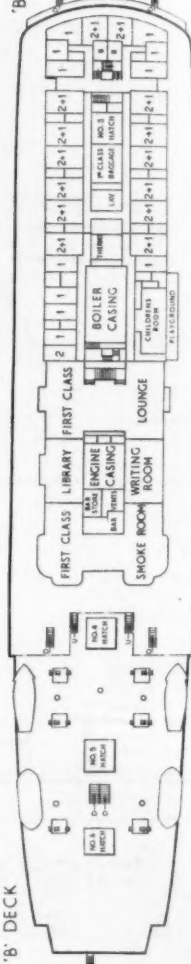
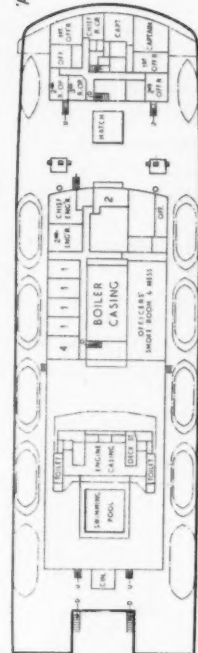
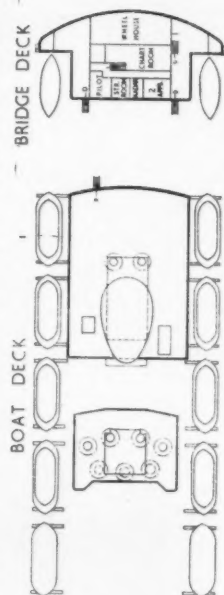
Special attention has been paid to the heating and ventilation of the ship. The first-class and tourist dining saloons are fully air conditioned by Thermotank, Ltd., Glasgow. When heating is required the installation is capable of maintaining a temperature of 70 deg. F. in these spaces when the outside temperature is 30 deg. F. When conditioning is in

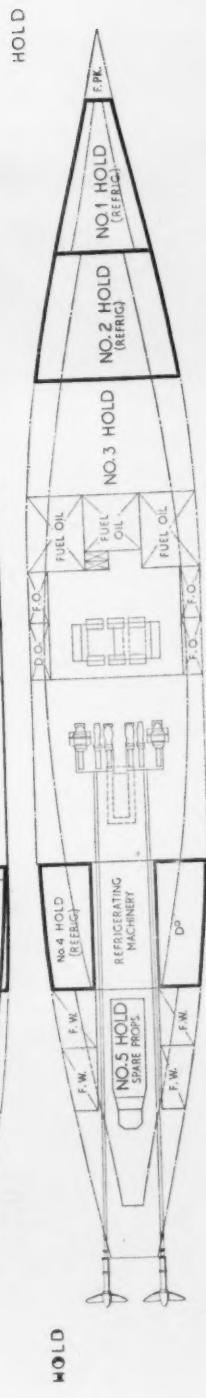
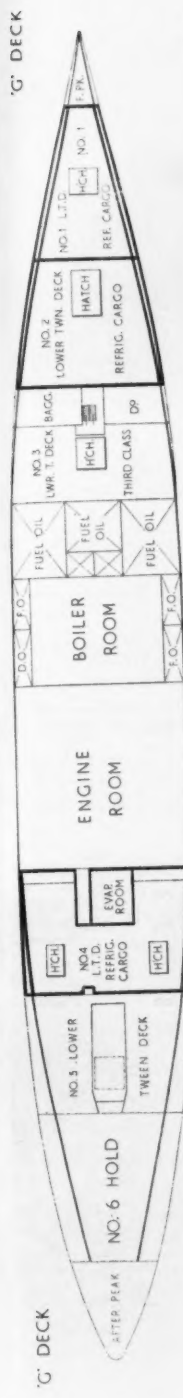
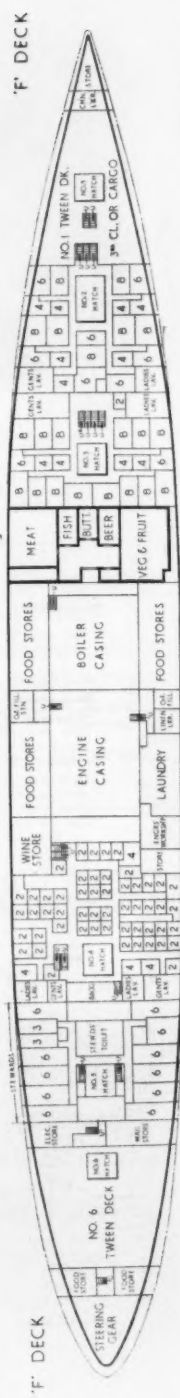
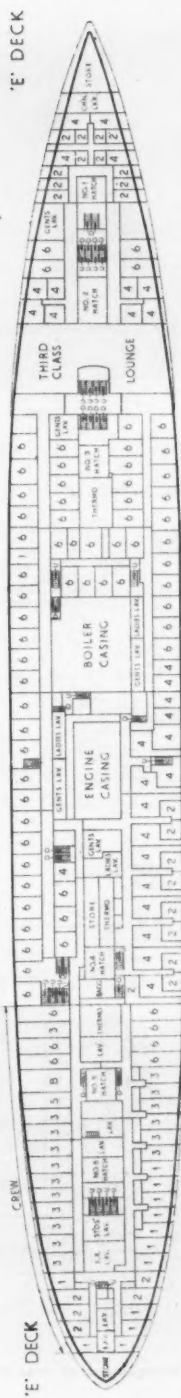
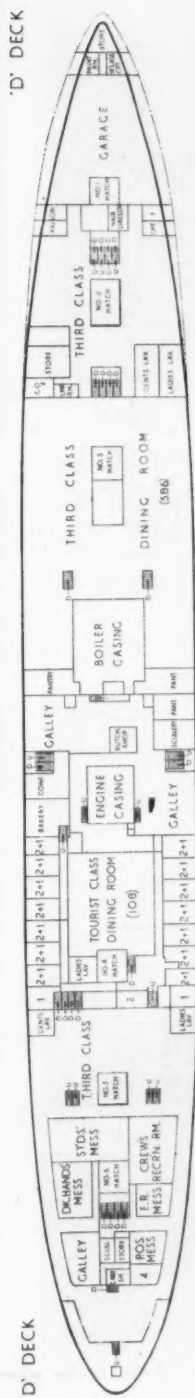
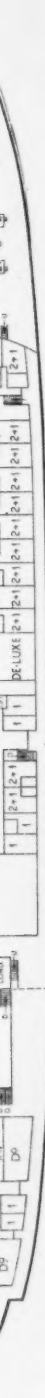


First-class lounge



First-class dining room

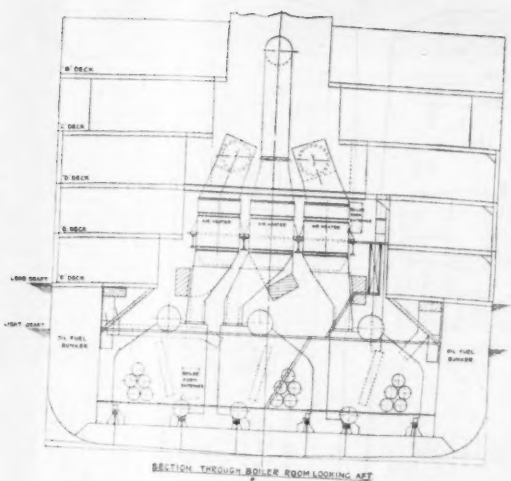




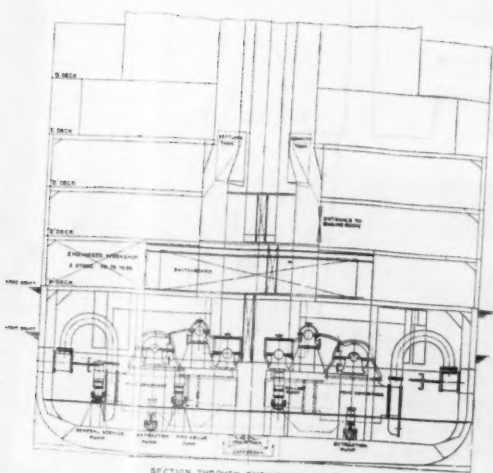
Twin-screw passenger and cargo turbine steamship "Provence," built by Swan, Hunter & Wigham Richardson, Ltd., for the Société Générale de Transports Maritimes à Vapeur







SECTION THROUGH BOILER ROOM LOOKING AFT



SECTION THROUGH ENGINE ROOM LOOKING AFT



Third-class lounge



Third-class dining room

progress a proportion of the air from the spaces being treated is recirculated through the units, but a minimum supply of fresh filtered air equal to 15 cu. ft. per minute is introduced into the system for ventilation purposes. A centrifugal fan is installed above the air conditioning units to prevent excessive change of air between dining saloons and galleys. This fan supplies air at atmospheric temperature to the galley when cooling is in progress in the saloons, and when the saloons are being heated or ventilated it exhausts air from them. The remaining public rooms and all the passenger and crew accommodation are heated and ventilated on the Thermotank system. Air at atmospheric temperature is also delivered to the laundry and cargo compartments.

Nos. 1, 2 and 4 holds and lower tweendecks are insulated with slab cork faced with sheet "Birmabright" and cooled by the cold air system for the carriage of refrigerated cargo. The refrigerating machinery, supplied by J. & E. Hall, L'd., is placed between the tunnels aft of the engine room. MacGregor patent steel hatch covers have been fitted to the 13 hatchways; these include the usual steel covers forward on the weather deck; the flush sports deck type (over trunkways) made in two sections, rolling and hingeing for vertical stowage, with sheathing on top; semi-flush insulated tweendeck covers in three sections; and flush tweendeck covers in two sections in motor car stowing spaces.

Twelve 5-ton derricks fitted on eight derrick posts are arranged for cargo handling, served by 12 Scott electric winches of the self-contained worm-gear type, having a full load speed of about 100 ft. per minute. Two electric capstans, supplied by Clarke, Chapman & Co., Ltd., are arranged aft on D deck. They have a warping capacity of 15 tons at 48 f.p.m. This firm also supplied the electric windlass with patent booster control, suitable for "Tayco" 2½ in. diameter iron stud link cables supplied by N. Hingley & Sons, Ltd. The steering gear is of the electro-hydraulic type supplied by Brown Bros. & Co., Ltd., Edinburgh. This is a 4-cyl. two-unit steering gear fitted with two 40 h.p. motors and two VSG variable delivery pumps. The steering gear is telemotor controlled from the wheelhouse and

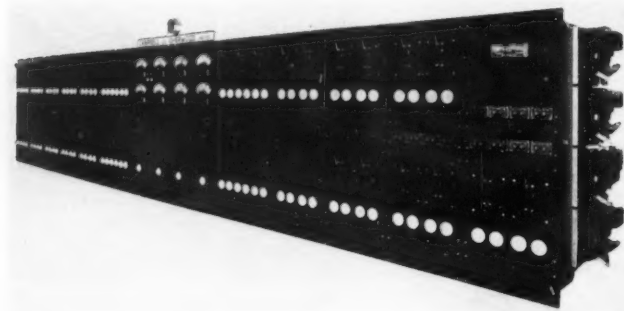
mechanically controlled from a pedestal on D deck, and also locally controlled by a handwheel at the steering gear. A standard rudderhead radial and weight carrying bearing is fitted at the rudderhead, carrying the weight of the rudder, etc., and all loads from the sea.

The lifesaving appliances include 24 lifeboats, 16 of which are of the nesting type, with Fleming hand-propelling gear, and four motorboats. The lifeboats are constructed of double-skinned mahogany planking and are fitted with Schatts boat skates. They are all fitted under Bi-Luff gravity davits by Marine & Allied Industries, Ltd., with electric winches. There are also 21 Simplex buoyant apparatus, each with capacity for 20 persons. Navigational aids include an S. G. Brown type A gyro compass and type E two-unit automatic helmsman, with three repeater compasses. Incorporated in this equipment is a new type of repeater control that eliminates all "hunt" in repeaters. Also fitted in the front of the automatic helmsman bridge control unit is the newly incorporated rudder angle indicator, operated directly from the rudder stock. The magnetic compasses supplied by Lilley & Gilie, Ltd., are of the latest dry-card type, the compass bowls being fitted with the patent motorship suspension. All compass bowls are interchangeable. The echo sounder is of the Kelvin Hughes type MS 21B, and a Ralston stability and trim indicator is also fitted. The radar is of Siemens' "Seascan" type.

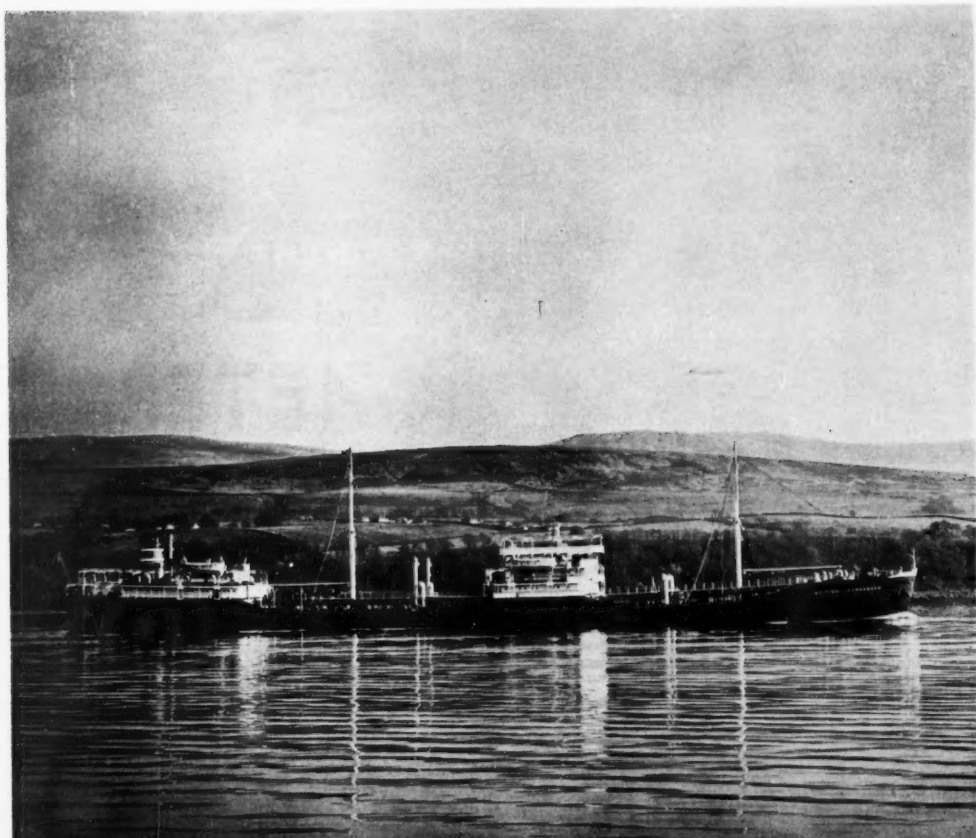
#### Main Propelling Machinery

The *Provence* is propelled by two sets of Parsons steam turbines each driving its propeller through single-reduction gearing. Designed for a working steam pressure of 450 lb. per sq. in., a steam temperature of 750 deg. F. and a vacuum of 28.2 in. of mercury, the turbines are capable of developing 15,000 s.h.p. at about 120 r.p.m. in service collectively.

Each set of turbines comprises a high-pressure, intermediate-pressure and low-pressure ahead turbine, working in series, and H.P. and L.P. astern turbines giving 65 per cent of ahead power. The ahead turbines are of the all-reaction type, the blading in the high-pressure and intermediate-



Front view of the main switchboard

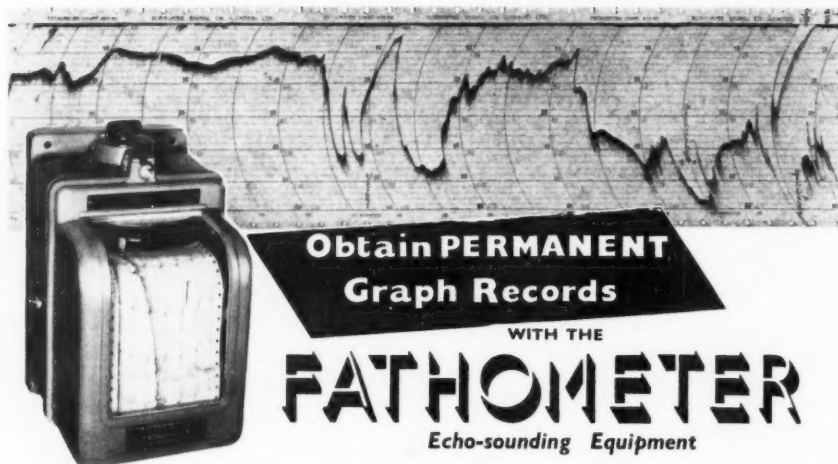


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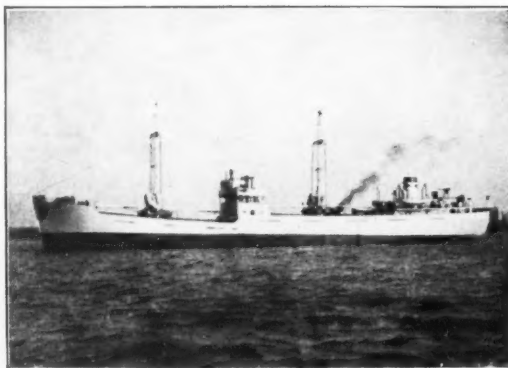
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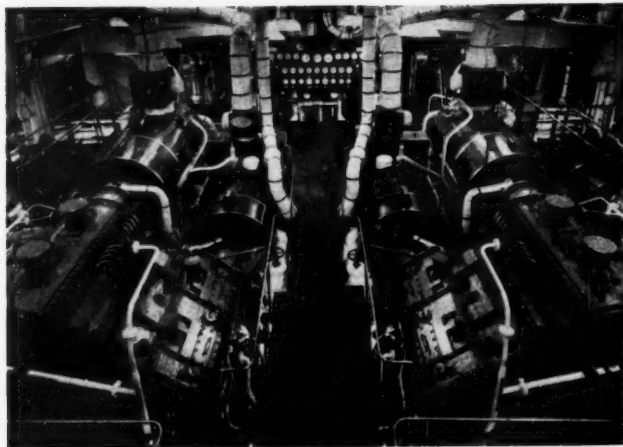
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View of the  
turbines

pressure turbines being end-tightened, and that in the low-pressure turbine of the radial clearance type. The H.P. astern turbine consists of an impulse wheel incorporated in the L.P. ahead turbine casing, and separated from it by a diaphragm. The L.P. astern impulse reaction turbine is in the exhaust end of the L.P. ahead turbine casing. Turbine glands are of the labyrinth type, and are arranged in conjunction with the latest system of gland aspiration and condensation. By this means, in addition to conserving a large quantity of feed water, the atmospheric conditions in the engine room are considerably improved. The working and spare propellers are four-bladed, of 18-ft. diameter, and weigh 12 tons. Supplied by the Manganese Bronze & Brass Co., Ltd., they are of the firm's patent Parsons manganese bronze No. 2 alloy.

#### Babcock & Wilcox Boilers

Steam is generated in three Babcock & Wilcox integral furnace boilers, capable of a total evaporation of 170,000 lb. per hour. Each boiler has a heating surface of 7,220 sq. ft. with a superheater of 689 sq. ft. and a three-pass tubular air heater of 6,012 sq. ft. Each boiler has a Howden electrically driven forced draught fan which discharges air to the centre of the air heater casing, so that the air flows towards the front and rear of the unit in two parallel paths. Half the combustion air passes down the rear casings, under the furnace floor and up to the burners; the remainder is led straight down the front casings. Balanced furnace conditions are maintained by three Howden electrically-driven induced draught fans having Howden dry dust collectors at their outlets. The boilers are in line athwartships facing forward. In addition to steam for the main propelling machinery and the electric generators, the boilers supply saturated low pressure steam for heating and ship's service, through two Babcock spray type desuperheaters and reducing valves. Oil for the 15 Babcock "Iowa" burners is supplied by a Babcock duplex pumping and heating unit with two electrically-driven gear pumps. A full complement of Babcock & Wilcox standard soot-blowing equipment is fitted.

Two W. H. Allen turbo-generators, using steam at full boiler pressure and temperature, each having an output of 750 kW at 220 volts, supply all the electrical requirements of the ship at sea. These sets are self-contained, having their own condensers, extraction and circulating pumps, and connections are so arranged that, during standby periods in port, they form an auxiliary closed feed system, thus ensuring that all feed water entering the boilers is de-aerated. Two 500-kW generating sets, driven by Allen two-stroke oil engines, each having 6 cylinders, 290 mm. bore and 470 mm. stroke, normally provide power in port for all ship's services, making it possible to completely shut down all steam plant. All auxiliary machinery, other than the feed pumps, is electrically driven.

The main switchboard for controlling the generators and for supplying all the ship's output is of the "dead front" type, with a total length of 38 ft., and was manufactured and installed by Campbell & Isherwood, Ltd., who carried out the complete electrical installation throughout. In

addition, there is a Campbell & Isherwood emergency diesel-driven generator of 80 kW and 220 volts output, together with an emergency switchboard.

Three Serck lubricating oil coolers are fitted, two for normal working and one standby, capable of dissipating 850,000 B.Th.U. per hour. Three vertical spindle screw displacement pumps by Stothert & Pitt, Ltd., are provided for forced lubrication duty. Each pump has an output of 10,000 gallons per hour of lubricating oil when running at 1,130 r.p.m. against a pressure of 50 lb. per sq. in. There are also two similar pumps for oil fuel transfer duty, all fitted with variable-speed electric control to cater for varying viscosity. Pumps supplied by Drysdale & Co., Ltd., include two 13-in. main circulating sea water pumps and one "Unright" combined 6-in. sea water, 3-in. brine and 3-in. fresh water pump.

The machinery spaces are protected against fire by pressurised self-contained "Pyrene" mechanical foam installations. The equipment installed in the engine room is entirely separate from that in the boiler room, but both have been designed and tested out to meet the requirements and approval of Bureau Veritas. The foam installation in the engine room comprises a 1,760-gallons water tank and a 54-gallons "Pyrene" foam-making compound tank, the water being expelled by CO<sub>2</sub> gas. The boiler-room installation incorporates a 1,000-gallons water tank with a 30-gallons foam compound tank. In order that the ship's personnel may be trained in generating and discharging foam to the machinery spaces, special arrangements have been made so that this may be done without interfering with the chemical charges contained in the tanks for firefighting purposes.

AFTER 75 years service on the River Tyne, the *Malta*, owned by Francis Fenwick Tyne & Wear Co., Ltd., is to be broken up. During the whole of her service she has used her original engine.

Six new passenger ships are being built in Yugoslav yards, for passenger service on the Adriatic. Each will have accommodation for 700 passengers. Each vessel will be about 160 ft. long and will have two engines capable of developing a maximum speed of 15 knots.

THE ocean tug *Eugenia M. Moran* recently left Balboa for Guam to pick up an 1,832 tons gross hydraulic dredger, *New Jersey*, and deliver it to New Orleans for the owners, Standard Dredging Co. of New York. The work is expected to take four months and the *Eugenia M. Moran*, owned by Moran Towing & Transportation Co., New York, will steam a total of 19,000 miles.

A NEW French company, Société des Revêtements Cemetex, S.A., has been formed by the Dunlop Rubber Co., Ltd., in conjunction with the Société Anonyme des Pneumatiques Dunlop. The company will operate in France as flooring and decking contractors under licence from Semtex, Ltd. (a Dunlop company), and has already begun the manufacture of thermo-plastic tiles similar to the sematic decorative tiles of the English company.



## Light Floats for the Humber

### Design of Automatic Fog Bell Installation

AMONG the miscellaneous types of vessel and craft which Cook, Welton & Gemmell, Ltd., have delivered in the past month from their Beverley shipyard is a pair of light floats for the Humber Conservancy Board. Those responsible for the design and construction have aimed at improving robustness and to give good stability and good compartmentation, so that the float will remain above water in the event of collision. The design was originally such that the float would roll readily and so obtain the maximum effect from the pendulum bell strikers. Experience has shown that this design safeguards the floats against frequent serious damage as, instead of resisting impact, they "give" easily and, in severe cases, roll upside down. From that position, they are easily righted by unhooking and sometimes the only serious damage is to the light flashing mechanism through the entry of water through the air intake.

The general appearance of these light floats can be seen from the accompanying illustrations. It will be seen that they are double-ended units but that the "aft" end has a skeg reminiscent of that found in Thames barges. The mooring post, of fairly normal lightship type, is at the forward end. The hull, which is 40 ft. in length b.p., with a beam moulded at 16 ft. and a depth moulded at 5 ft. 9 in., is of steel, all-welded, with deep reversed angles forming floors.

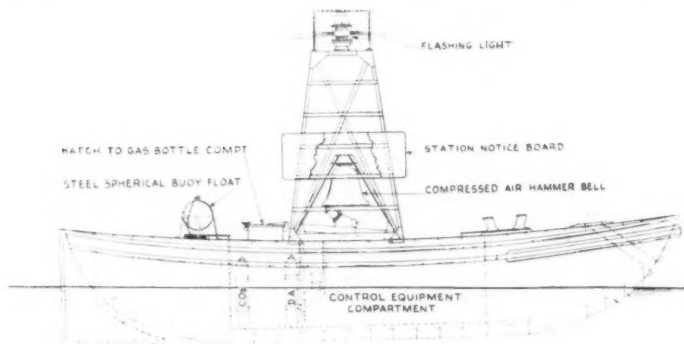
The forward and after compartments are buoyancy compartments, the centre compartment housing the control equipment and gas bottles. The deck is flush plated and built so that water will not collect in pockets. A large watertight hatch of rectangular shape gives access to the centre compartment, and manholes on raised coamings to the end compartments. A spherical buoy float is arranged

in a cradle on the after deck to mark the position of a sunken float, being automatically released as the float overturns; and four mooring and one towing bollards are fitted, of Humber Conservancy design. The light itself has a focal point 17 ft. above the normal waterline and is mounted on a steel lattice structure with the nameplate fastened on the side. At the base of this structure there is a CO<sub>2</sub> gas hammer operated bell for use during foggy periods.

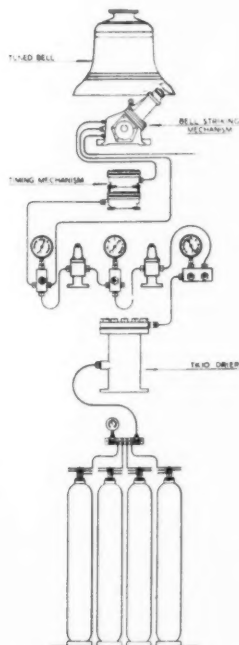
The whole of the light equipment has been supplied by the Gas Accumulator Co., Ltd., of Brentford, Middlesex, and consists of a lantern containing a cylindrical lens of about 100 mm. focal length and an open burner giving a flashing light controlled by a flashing mechanism and a pilot jet. Dissolved acetylene is used for the light and the pressure of the gas is used to drive the flashing mechanism. Sufficient gas is stored in cylinders in the float to run the light for 12 months with a small reserve. The mechanism will give either single or multiple flashes at a speed varying roughly from 30 flashes to 3 flashes per minute.

### Fog Bell Equipment

The fog bell equipment fitted to these floats is of particular interest. For many years a common form of bell on floating navigation marks consisted of a number of pendulum hammers suspended round a fixed bell gong. This device depends for its operation on the rolling of the float or buoy carrying it, so in a brisk wind with appreciable wave motion it will give a healthy signal, but as foggy conditions are usually associated with little or no wind or waves, the signal when most needed is usually at its feeblest. Another method was to mount paddle wheels on the sides of the float which were rotated by the flowing tide and acting through gearing and cams caused a form of hammer to strike the bell at intervals. The power of the strokes was constant, but as the interval between depended on the flow of the tide there was no definite characteristic signal and there



Photograph and general arrangement drawing



Diagrammatic arrangement of the AGA fog bell installation in the Humber light floats

were periods round high and low tide when the device became inoperative.

What was needed was a sound signal of constant strength repeated at definite time intervals, enabling the station to be readily identifiable; while the navigational authority responsible for the provision of the warning called for something that would operate automatically over long periods without attention. The problem was eventually solved by the AGA power-driven bell striker. In principle the striker resembles a pneumatic hammer, but instead of air, carbon dioxide gas is used, because it is innocuous, does not cause corrosion and is readily stored in cylinders which are easily transported.

In the floats recently completed at Beverley, a battery of CO<sub>2</sub> cylinders, coupled in parallel, is connected first to a chemical drier which serves to remove any practical trace of moisture that may remain in what is already virtually dry gas. From here the gas passes, still at high pressure, to a reducing valve where the varying pressure of gas from the cylinders is stepped down to a suitable and constant level for operating the time and striking mechanism. For reliability two pressure regulators are used, connected in series, one acting as monitor to the other. The timing mechanism is almost of the same construction as the AGA flasher associated with flashing acetylene lights and has the same inherent quality of being able to operate over many years with the same clocklike regularity without skilled attention.

#### Timing Mechanism

At each desired interval the timing mechanism discharges a small quantity of gas which acts as a relay valve in the striker, which in turn serves to trigger the main valve, which then opens, admitting the high-pressure gas which "fires" the striking plunger. The gas cylinders, drier, regulators and timing device are protected below deck; the bell and its striker are above and exposed. The striker is designed to be proof against the ingress of water and all its essential parts are automatically lubricated from an oil sump by an oil mist created and directed by the exhaust gas. The more common characters in use are a single stroke every 20, 30 or 40 seconds, but multiple stroke or group characters are equally possible, though naturally they are more extravagant of gas.

The equipment for the Humber floats comprises a 104-cwt. bell gong and its striker mounted within the lattice trestle carrying the AGA light, with a battery of six CO<sub>2</sub> cylinders and control panel below deck. The sound character is a single stroke every 30 seconds, the battery being sufficient to maintain this night and day for four months with a 10 per cent safety reserve of gas.

One of the new floats built at Beverley is in use on the Ness station, which marks the entrance to the narrow shifting channel of the upper Humber. The second float is designed to relieve lightships and other floats when they are brought in for normal maintenance. Soon after the float was taken over, the Sourn Lightship was hit by a trawler and sustained damage which necessitated bringing it in for repair. The new float was put out on the station, which is some four miles out at sea and, with its bell ringing every 18 seconds, successfully rode out the worst south-east gale of the winter.

#### Association Technique Maritime et Aeronautique

A number of interesting papers will be read at the 30th meeting of the Association Technique Maritime et Aeronautique, which will be held at 2 Place de la Bourse, Paris 2e, on May 22 to 25. The papers include "Trim, Stability and List of Damaged Ships," by M. Ganson, and "Smoke Abatement in Ships," by M. Eustaze, both of S.A. John Cockrell, "Cargo Handling," by Commandant Garoche, "Speeding General Cargo Handling by the Use of Mechanical Equipment," by M. Vincenti, "Shades of Hulls at Interference Speeds  $V/\sqrt{L} = 1.3$  to 2," by M. Rolland, of Milne, Gilmore & German, naval architects of Montreal, "Simplified Equipment for Towing and Self-Propelling of Ships' Models at High Speeds," by M. Laurent, "Standardisation of Screw Propellers," by M. Van Lommeren, of the Netherlands Experimental Tank, and "Recording Hull Vibrations with Propelling Machinery at Rest," by MM. Pintard and Rochefort, of the Forges & Chantiers de la Mediterranee.

The first foreign vessel to dock in Milwaukee this season was the Dutch vessel *Prins Willem IV*.

A NEW £12,500 life-boat named the *Isaac* and *Mary Bolton* has been stationed at Colercoats, Northumberland, to replace the *Westmorland*, which has been in use since 1939.

## ROUND THE SHIPYARDS

### Work in Progress on the South Coast

#### By THE SHIPPING WORLD'S Own Correspondent

SHIPBUILDING activities on the South Coast last month featured the launching of two warships at the Woolston shipyard of John I. Thornycroft & Co., Ltd. The first vessel to enter the water, on April 9, was the destroyer H.M.S. *Duchess*, and the second was the river gunboat *Maranon*, building for the Peruvian Government for service on the River Amazon and its tributaries. The *Duchess*, the seventh of a series of eight *Daring*-class destroyers for the Royal Navy, was launched by Countess Mountbatten of Burma, and is the fifth ship in the history of the Royal Navy to bear the name. She is one of the largest type of destroyers and it is believed that Thornycroft's and Yarrow & Co., Ltd., are the only two firms outside the Admiralty which have been allowed to prepare designs for this class of ship.

The Peruvian gunboat *Maranon*, launched by Senora Olinda de Barreto on April 23, is a sister ship of the *Ucayali*, launched in March. Both vessels will sail under their own power to their base at Iquitos, about 2,000 miles up the River Amazon. In addition to the 600-tons floating dock in course of construction for the Peruvian Government, Thornycroft's have in hand a 650-tons salvage vessel for the Mersey Docks & Harbour Board, a 393-tons steam tug for the Suez Canal and a number of smaller craft. Work on the hull of the 5,000-tons vessel building under subcontract with Akers mek. Verksted for Fred Olsen's Oslo and Newcastle-on-Tyne cargo and passenger service, has made good progress.

On the shiprepairing side, Thornycroft's have a substantial refit commitment in H.M.S. *Vigilant*, calling for a number of alterations and additions to superstructure. Also under refit are H.M. ships *Caprice*, *Matchless*, *Fancy* and *Onyx*, and the usual number of vessels have been in hand for voyage or general repairs.

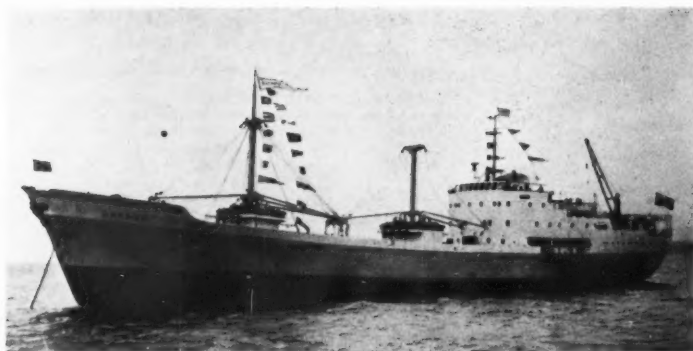
#### Work at Cowes

J. Samuel White & Co., Ltd., Cowes, have been engaged in fitting-out the destroyer *Dainty*, launched by the firm last year. The refrigerated ship *Kadoura*, building to the order of the Chargeurs Reunis, is approaching launching stage. The yard has advanced with the construction of a 110-tons motor cargo vessel for the Island Transport Company and the balance of 20 motor lifeboats, of a fleet of 50, building for the R.N.L.I. The shiprepair department of the firm has been busy with the conversion of H.M.S. *Falmouth* to an R.N.V.R. drillship to be stationed on the Tyne, the refit of the Egyptian vessel *Ibrahim* (ex-"Hunt" class destroyer *Coltesmore*) and the refit of H.M.S. *Ready*.

Husbands, Ltd., of Marchwood, have carried out machinery repairs to the tankers *Esso Southampton*, *Esso Aberdeen* and *Steens Mountain*. Cosens & Co., Ltd., of Weymouth, effected heavy weather damage repairs to the main deck of the Italian Liberty ship *Frederic A. Eilers*, and have completed the overhaul of several excursion steamers for survey.

At Dartmouth, Philip & Son, Ltd., have about 16 vessels in course of construction, including two 450-tons passenger ferries for the Wallasey Corporation, a motor coaster of 325 tons for the Shell Petroleum Company's service at Singapore, and two lightships, each of 385 tons, for the Corporation of Trinity House. Silley, Cox & Co., Ltd., Falmouth, have been busy of late with tanker repairs, drydocking, or other requirements, among the vessels dealt with being the *British Commodore*, *British Isles*, *British Virtue* and *British Purpose*.

In the Bristol Channel, Charles Hill & Sons, Ltd., have three ships in course of construction, including a 500-tons coastal tanker for the National Benzole Co., Ltd., a twin-screw motor tug for the Port of Bristol Harbour Board of New Zealand. The firm has on order a dry cargo vessel for the Docks & Inland Waterways Executive, a coaster for the Ald Shipping Co., Ltd., and a motor coastal tanker for the Regent Oil Co., Ltd.

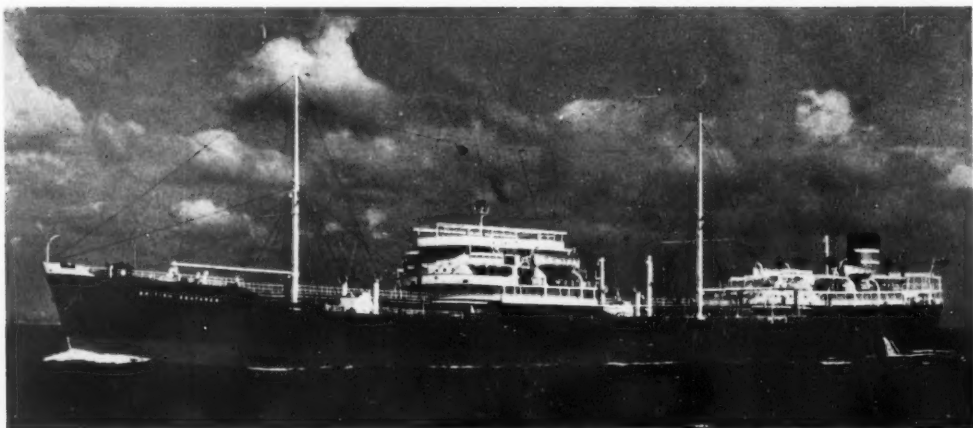
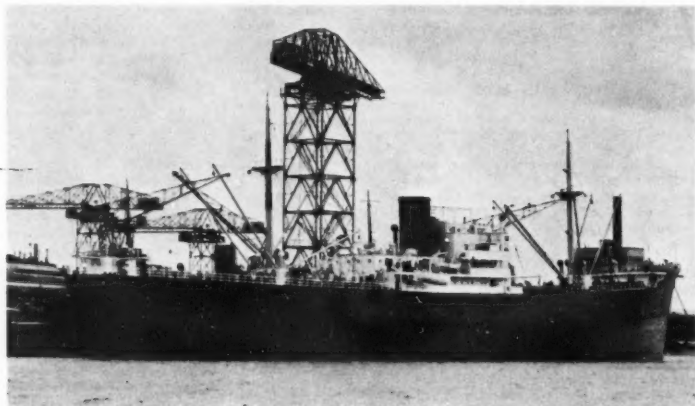


**Norwegian Cargo Ship  
"Bayard"**

The delivery has taken place of the single-screw cargo motorship *Bayard*, built by Helsingborgs Varfs A.B., Helsingborg, for Den Norske Hvidelhavslinje A.S. (Fred Olsen & Co.), Oslo. She is an open shelter-decker with a gross tonnage of 1,900. Her deadweight capacity is 2,840 tons on a draught to summer loadline of 18 ft. 11½ in. She has a length o.a. of 346 ft. 1 in., b.p. 314 ft., a breadth moulded of 46 ft. and a depth moulded to main deck of 19 ft. 3 in. The propelling machinery, supplied by A.B. Gotaverken, of Gothenburg, consists of an 8-cylinder two-stroke single-acting diesel engine. This engine develops 3,700 i.h.p. at 160 r.p.m. and provides the ship with a speed of 15½ knots in fully loaded condition.

**Cargo Steamer "Mont Agel"**

The first of two sister ships building for the West Indies service of the Societe Generale de Transports Maritimes a Vapeur by Chantiers de Normandie, Grand Quevilly, has been completed. She is the *Mont Agel*, a turbine-driven cargo vessel of 4,530 tons gross. Her deadweight capacity is about 8,090 tons on a draught of 24.6 ft. She has a length of 410 ft., breadth 55.8 ft., and a depth of 38.2 ft. The propelling machinery, comprising double-reduction geared Parsons turbines, develops 4,000 horsepower and provides the vessel with a service speed of 13 knots. Her sister ship, *Mont Viso*, left the ways on April 23



**Motor Tanker "British Seafarer"**

Built by R. & W. Hawthorn, Leslie & Co., Ltd., the single-screw motor tanker *British Seafarer* has completed successful trials and has been handed over to her owners, the British Tanker Co., Ltd. Of 11,200 tons gross, she carries a deadweight of about 16,000 tons. Her principal dimensions are about 547 ft. length o.a., 69 ft. 6 in. breadth moulded and 37 ft. 6 in. depth moulded to upper deck. She is of the single-deck type with poop, short bridge, forecastle decks, raked stem and cruiser stern. The cargo space is divided into nine main oil tanks, subdivided by two longitudinal bulkheads, making a total of 27 separate oil compartments. There are two main cargo pump rooms. Her single screw is driven by a 6-cylinder two-stroke single-acting Doxford-type diesel engine. The engine, supplied by the shipbuilders, develops 6,400 b.h.p. at about 115 r.p.m.

## NEW CONTRACTS

## Yards in Great Britain and Northern Ireland

Shipowners	No. of Ships	Type	Approximate Tonnages		Dimensions (ft.)	Speed (knots)	Propelling Machinery	Total h.p.	Engine Builders	Shipbuilders
			Gross	Deadweight						
Ulster S.S. Co.	1	Cargo liner	5,700	—	—	16	Dble.-red. geared turbine Diesel	—	—	Harland & Wolff, Belfast
Anton Meidell's Rederi (A/S D/S Field), Bergen	1	Tanker*	—	12,000	—	—	—	—	—	Harland & Wolff, Belfast
A. F. Klaveness & Co., Oslo	1	Tanker	—	18,000	—	—	B. & W. diesel	—	John G. Kincaid	Lithgows
Ayrshire Nav. Co.	1	Ore carrier	—	14,000	—	—	Doxford diesel	—	D. Rowan	Lithgows
Alfred Holt & Co.	1	Cargo	8,500	—	—	—	Turbine	—	Metropolitan-Vickers	Caledon S.B.
Arthur H. Mathiesen, Oslo	1	Tanker	—	18,000	—	—	Diesel	—	—	Harland & Wolff, Govan
Barnhill Shipping & Finance Co.	1	Tanker	—	25,000	—	—	—	—	—	Furness S.B.
Fred Olsen & Co., Oslo	1	Tanker	—	18,000	—	—	Diesel	—	—	Harland & Wolff, Govan
Esso Petroleum Co. (1) : and Standard-Vacuum Oil Co., New York (2)	3	Tankers	—	26,500 (each)	—	16	Dble.-red. geared turbine	—	Shipbuilders	Cammell Laird
Arthur Guinness, Son & Co.	2	Coasters	—	800 (each)	—	11	6-cyl. diesel	—	British Polar Engines	Ailsa S.B. and Ardrossan Dockyard (1 each)
Sudan Govt.	1	Launch	16	—	—	—	—	—	—	Yarrow & Co. (Marine)
Coast Lines associate	1	—	—	—	—	—	8-cyl. diesel	1,330	British Polar Engines	Burntisland S.B.
South Eastern Gas Board	1	Collier	—	2,800	—	—	8-cyl. diesel	1,150	British Polar Engines	Jas. Lamont
British owners	1	Coaster	—	1,350	—	—	6-cyl. diesel	960	British Polar Engines	Burntisland S.B.
Constantine Shipping Co.	1	Cargo	—	1,610	—	—	Diesel	800	British Polar Engines	Fairfield S.B.
Liberian Nav. Corp.	4	Ore carriers	—	22,400 (each)	600 x 80 x 43	14	6-cyl. Doxford diesel	—	Shipbuilders	—
Commonwealth and Foreign Yards										
Jacob Kilde A/S, Bergen	2	Tankers	—	13,500	—	—	Diesel	—	—	Fredrikstad M.V.
Soc. Nav. Caennaise S.A., Caen	1	Cargo	2,700	—	—	—	Steam	—	—	Amsterdamsche Droogdok Maats.
A.S. Bisca (Per Gjerding), Bergen	2	Cargo	—	4,200 (each)	—	13.5	Diesel	—	—	Howaldtswerke, Kiel
Egon Oldendorff, Lubeck	1	Cargo	2,500	4,200	347.8 x 48.6	—	Diesel	—	—	Lubecker Masch.-Ges.
Hamburg owners	1	Tanker	700	900	192.8 b.p. x 29.55 x 14.1	10-11	Diesel	600	—	Elfsfether Werft, Elsfleth
Danish Govt.	2	Inspection cutters	—	—	—	—	—	—	—	Holbek and Korsor yards
N.V. Stoomv.-Maats. "Nederland," Amsterdam	1	Cargo	—	10,500	—	—	10-cyl. M.A.N. diesel	8,400	—	A. Vuyk & Zonen, Capelle a/d Yssel
Stoomv.-Maats. "Nederland," J. Bont, Groningen	1	Cargo	—	10,950	—	—	Diesel	—	—	Netherlands Dock & S.B. Co., Amsterdam
—	1	Coaster	—	650	—	—	6-cyl., 4-str. Deutz diesel	480	—	Scheeps "Foxhol," v/h Gebr. Muller, Foxhol
Pleuger & Co., Hamburg	1	Cargo	—	8,000	429.8 o.a. x 52.5 x 31.8	15	Diesel-electric	6,000	—	H. C. Stulcken Sohn, Hamburg
J. A. Reinecke, —	1	Cargo	600	1,100	183.7 o.a. and 169 b.p. x 29.55 x 18	—	Diesel	—	—	A. G. Weser, Werk Seebeck, Bremerhaven
Hamburger Hochbahn	1	Passenger launch	—	—	72.7 o.a. and 70.2 b.p. x 14.8 x 5.3	—	—	—	—	J. Oelkers, Hamburg

\* Additional particulars of a contract reported in THE SHIPPING WORLD, February, 14, 1951.

## LAUNCHES

## Yards in Great Britain and Northern Ireland

Date	Shipowners	Ship's Name and/or Yard No.	Type	Approximate Tonnages		Dimensions (ft.)	Speed (knots)	Propelling Machinery	Total h.p.	Engine Builders	Shipbuilders
				Gross	Deadweight						
May —	United Whalers	Setter VII	Whale catcher	535	—	—	—	Steam motor	—	—	A. & J. Inglis
May 2	Unitas, Inc. Panama	Kipowa	Tanker	12,800	19,000	547.4 x 72.3 x 41.1	—	Sin.-scr., 5-cyl., 2-str. Doxford diesel	—	Shipbuilders	John Brown
May 4	Tonsbergs Rederi A/S	Buesten	Tanker	10,000	15,000	500 b.p. x 65.5 x 37.5	13	Sin.-scr., 5-cyl., 2-str. Doxford diesel	5,100	Wallisand Slipway & Eng. Co.	Swan, Hunter, & Wigham Richardson, Wallisand
May 5	Fred Olsen & Co., Oslo	Bollsta	Tanker	16,000	24,000	623.5 o.a. and 580 b.p. x 78 x 42.5	—	Sin.-scr., 7-cyl., 2-str. B. & W. diesel	—	Shipbuilders	Harland & Wolff, Govan
May 7	Motorvisserij N.V., Ostend	Van Eyck	Trawler	580	—	170 x 29 x 15.25	—	Tr.-exp. steam	—	Chas. El. Holmes	Cook, Welton & Gemmill
May 8	Melbourne Harbour Trust Commissioners	A.D. Mackenzie	Bucket dredger	—	—	178 x 36 x 12.5	—	Non-propelled	—	—	Lobnitz

## TRIAL TRIPS

## Yards in Great Britain and Northern Ireland

Date	Shipowners	Ship's Name and/or Yard No.	Type	Approximate Tonnages		Dimensions (ft.)	Speed (knots)	Propelling Machinery	Total h.p.	Engine Builders	Shipbuilders
				Gross	Deadweight						
—	Yacimientos Petroliferos Fiscales, Buenos Aires	General Pueyrredon (1204)	Tanker	12,000	18,000	565.75 o.a. and 530 b.p. x 71 x 39	—	Sin.-scr. dble.red. geared turbine	6,000	Shipbuilders	Cammell Laird
May —	Floza Mercante Grancolombiana, Bogota	Ciudad de Medellin (752)	Cargo	5,500	—	395 x 55 x 24.5	14.5	4-cyl. Doxford diesel	4,600	Shipbuilders	Fairfield S.B.
May —	Orient S.N. Co.	Oronsay (976)	Pass. liner	27,632	—	708.66 o.a. and 668 b.p. x 90.5 x 50	22.5	Tw.-scr. geared Parsons turbine	42,500	Shipbuilders	Vickers-Armstrongs, Barrow

# MARITIME NEWS IN BRIEF

From Correspondents at Home and Overseas

**T**HE Southampton Shipping and Industries Exhibition will be officially inaugurated by Earl Mountbatten of Burma at noon on June 30. The Exhibition, which will be open until July 14, promises to be one of the "highlights" of Southampton's Festival of Britain activities. The chairman of the Organising Committee is the Docks and Marine Manager, Mr. R. P. Biddle. Each phase of industry in the district will be represented, and models of every shipping company associated with the port—including the large model of the *Queen Mary*—will be on view. House flags of all the shipping lines using Southampton Docks will decorate the Hall of Shipping.

ALDERMAN B. O. DAVIES, of Redcar, has been elected chairman of the Tees Conservancy Commission, in succession to Mr. G. West Byng. The election was proposed by Sir G. Tristram Edwards, who recalled that Mr. Davies had been a member of the Commission since 1916 and was chairman of the works committee for 20 years. Mr. Stephen N. Furness, chairman of the Furness Shipbuilding Co., Ltd., was elected deputy chairman. Sir G. Tristram Edwards submitted his resignation from the Commission because he is leaving the district.

MR. JOHN F. C. BREAKER, at present commercial representative of Royal Mail Lines, Ltd., Southampton, has been appointed deputy North Pacific Coast manager with headquarters at Seattle. Mr. H. B. Wood, until recently manager of the Royal Mail office at Rio de Janeiro, will succeed Mr. Breaker at Southampton on June 1.

MR. WALTER B. ALLAN, joint managing director of Albyn Line, Ltd., has been re-elected representative of Sunderland on the Committee of Management of Lloyd's Register of Shipping.

MR. W. F. FREEMAN and Mr. D. L. J. Mortelman have been appointed directors of the General Steam Navigation Co., Ltd., with effect from June 1.

MR. H. E. HOOPER, M.B.E., F.I.C.S., has been appointed a director of Wm. H. Muller & Co. (London), Ltd.

**T**HE following grants have been made by King George's Fund for Sailors: £3,000 to the Merchant Seamen's War Memorial Society, for the maintenance of the Henry Radcliffe Convalescent Home at Limpsfield, Surrey; £3,000 to the Liverpool Seamen's Welfare Centre, for the maintenance of the "Summerlands" Rest Home and Training Centre, near Kendal, Westmorland; £11,500 to the Mercantile Marine Service Association; £6,500 to the Queen Victor a Seamen's Rest, Poplar; £1,500 to the Scarborough Merchant Seamen's Hospital, and Trinity House, for renovation of premises.

THE British Iron and Steel Research Association has acquired the whole of the premises at 140 Battersea Park Road, London, of which the physics, chemistry and plant engineering laboratories now occupy about one-quarter. This will make available some 43,000 sq. ft. of additional

laboratory and office accommodation, until recently occupied by the research department of Powell Duffryn Research Laboratories, Ltd.

MR. T. F. LISTER, chairman and managing director of the Hackbridge & Hewitt Electric Co., Ltd., has been elected chairman of the British Electric & Allied Manufacturers' Association for 1951-52; Mr. I. R. Cox, D.S.O., managing director of Metropolitan-Vickers Electrical Co., Ltd., was re-elected vice-chairman.

THE 1950 Parsons Memorial Lecture of the Institute of Marine Engineers, entitled "Sir Charles Parsons and Cavitation," will be delivered by Professor L. C. Burrill on May 22 at 5.30 p.m.

THE Newcastle-upon-Tyne district office of the British Thomson-Houston Co., Ltd., is now at 9 Higham Place, Newcastle-upon-Tyne, 1. The telephone number remains the same, Newcastle 25040.

**T**HE Aluminium Company of Canada has announced that it intends to build a new plant at Kitimat, south of Prince Rupert, British Columbia. Construction will start immediately and it is expected that completion will be effected in 1954. Deep-sea shipping will be used to bring bauxite to Kitimat. Other areas of the Pacific North-West will also be developed for the production of aluminium, according to the plans of the Aluminium Company of America, which is to spend 50 million dollars on an aluminium plant near Wenatchee, Wash.

SHOWER BATHS have been provided at the North-Eastern Marine Engineering Co. (1938), Ltd., Wallsend, for the use of men employed at the East foundry. The firm provides soap and towels. Similar facilities will later be provided at the firm's other foundry.

THE cargo liner *Chakdina*, to be launched on May 21 by Swan, Hunter & Wigham Richardson, Ltd., Walker-on-Tyne, for the British India S.N. Co., Ltd., will be named by Miss Gemma Simon, daughter of the Hon. J. G. Simon.

CAPT. HARRY DIXON, after 48 years at sea, is retiring. He has spent the last 36 years in the service of the Cunard Steam-Ship Co., Ltd., having commanded all the largest vessels of the fleet.

THE dramatic section of the Glen Club (The Glen Players) will be performing "Bonaventure," by Charlotte Hastings, at the Cripple Gate Theatre on June 8 at 7.30 p.m. This is the first serious drama to be undertaken by the company.

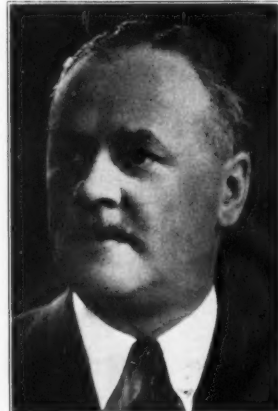
DISPLACED persons in Scandinavia will be transported to Canada from Copenhagen by the Swedish vessel *Anna Salen*, which has been chartered by the International Refugee Organisation.

THE Mercantile Dry Dock Co., Ltd., Jarrow, has received the contract for extensive bottom damage repairs to the *Irene Dal*, and the vessel is due about the end of May. She is also to be converted to oil burning.



MR. H. M. CLEMINSON is the subject of this portrait by Mr. Sydney Seymour Lucas in the Summer Exhibition at the Royal Academy. Mr. Cleminson was general manager of the Chamber of Shipping of the United Kingdom from 1916 until his retirement in 1941. He was also responsible for the foundation of the International Shipping Conference (now the International Chamber of Shipping) and was its secretary from 1922 until 1941. He was a vice-president of the Institute of Transport and a member of the Court of the Worshipful Company of Shipwrights.

MR. H. G. SORRELL, O.B.E., the new assistant general manager, London, of Coast Lines, Ltd., joined the company's London staff after serving with the Gloucestershire Regiment during the First World War. He became assistant manager in 1933 and traffic manager in 1937. On the outbreak of war in 1939, Mr. Sorrell was appointed secretary to the London Coasting and Short Sea Committee, Ministry of Shipping, transferring to the Ministry of War Transport in 1940. Rejoining Coast Lines in 1949, he was appointed manager in 1950.





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## INDEX TO ADVERTISERS IN THIS ISSUE

	Page		Page		Page
Anderson, Green & Co., Ltd.	A16	Frigidaire, Ltd.	A3	Pacific Steam Navigation Co.	A15
Anglo-Baltic Lines	A17	Furness Withy & Co., Ltd.	A17	Palm Line, Ltd.	A14
Anglo-Iranian Oil Co., Ltd.	A2	General Steam Navigation Co., Ltd.	A14	P. & O. & B.I. Companies	A16
Bank Line	A17	Green, R. & H., & Silley Weir, Ltd.	A5	Port Line, Ltd.	A16
Bibby Brothers & Co.	A16	Harland & Wolff, Ltd.	A11	Potter, J. D.	A18
Blundell & Crompton, Ltd.	A10	Houlder Brothers & Co., Ltd.	A16	Preston, Port of Authority	A14
Boulton, H. J., Ltd.	A19	Isherwood, Sir J. W., & Co., Ltd.	A13	Prince Line, Ltd.	A17
British & Continental Steamship Co., Ltd.	A16	Kincaid, J. G., & Co., Ltd.	A19	Readhead, John, & Sons, Ltd.	A4
Brown Bros. & Co., Ltd.	A10	Lambie, R. D.	A7	Ropner, Sir R., & Co. (Management), Ltd.	A15
Camrex Paints, Ltd.	A14	Laing, Sir James, & Co., Ltd.	A8	Royal Alfred Merchant Seamen's Society	A18
Canadian-Vickers, Ltd.	A19	MacAndrews & Co., Ltd.	A17	Royal Mail Lines, Ltd.	A15
Cayzer Irvine & Co., Ltd.	A16	MacTaggart Scott & Co., Ltd.	A18	Shaw Savill & Albion Co., Ltd.	A14
Clan Line	A15	McGeoch, Wm., & Co., Ltd.	A13	South American Saint Line, Ltd.	Front Cover
Cory, Wm., & Son, Ltd.	A2	Moss Hutchison Line, Ltd.	A14	Submarine Signal Co. (London), Ltd.	A12
Crichton, C. & H., Ltd.	A10	New Zealand Shipping Co., Ltd.	A16	Thompson, Jos., L., & Sons, Ltd.	A8
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Dreadnought Fireproof Doors (1930), Ltd.	A13	Orient Line	A16	United-Baltic Corporation	A17
Drysdale & Co., Ltd.	A4			Weibsters, Ltd.	A14
Eagle Aviation, Ltd.	A18			Weir, Andrew, Shipping & Trading Co., Ltd.	A12
Edison Swan Electric Co., Ltd.	A6				
Ellerman Lines	A15				
Ellerman's Wilson Line, Ltd.	A16				
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Fairfield Shipbuilding & Engineering Co., Ltd.	A12				



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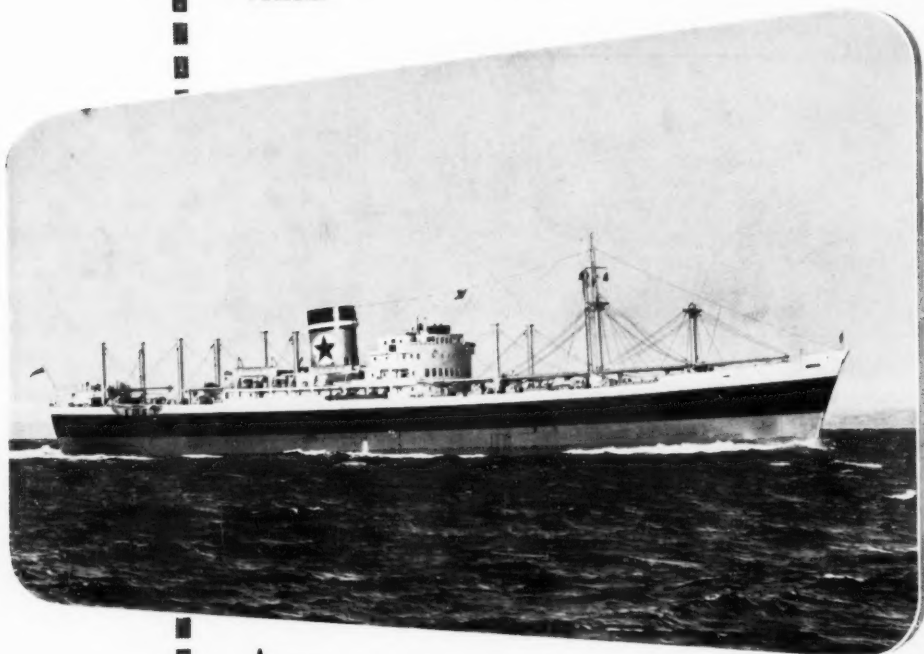
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